#### STRUCTURE SEARCH

1.28

```
=> d his 1135
     (FILE 'HCAPLUS' ENTERED AT 11:16:13 ON 28 AUG 2009)
1.135
            30 S L134 OR L132
=> d que 1135
              6 SEA FILE=REGISTRY SPE=ON ABB=ON PLU=ON (134367-40-1/
               BI OR 28133-65-5/BI OR 2997-92-4/BI OR 6132-04-3/BI OR
                7757-82-6/BI OR 9003-39-8/BI)
L3
                STR
REP G1=(2-8) C
NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED
GRAPH ATTRIBUTES:
RSPEC I
NUMBER OF NODES IS
STEREO ATTRIBUTES: NONE
               SCR 2043
L7
          10986 SEA FILE=REGISTRY SSS FUL L3 AND L5
L9
          56482 SEA FILE-HCAPLUS SPE=ON ABB=ON PLU=ON L7
                QUE SPE=ON ABB=ON PLU=ON SALT OR ELECTROLYT?
L10
                QUE SPE=ON ABB=ON PLU=ON SUSPEN? OR DISPERS? OR COL
Lll
                LOID? OR EMULS? OR MICROEMULS? OR SLURR?
          3337 SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON L9 AND L10
                AND L11
L13
          56173 SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON DISPERS?(2A)(P
                OLYMERI? OR ANION? OR AGENT)
T.14
            501 SEA FILE-HCAPLUS SPE=ON ABB=ON PLU=ON L12 AND L13
L15
                QUE SPE=ON ABB=ON PLU=ON "DISPERSING AGENTS"/CT
                QUE SPE=ON ABB=ON PLU=ON "DISPERSE SYSTEMS"/CT
L16
L17
                OUE SPE=ON ABB=ON PLU=ON "SALTS, USES"/CT
L18
             9 SEA FILE-HCAPLUS SPE=ON ABB=ON PLU=ON L9 AND (L15
               OR L16) AND L17
L19
            502 SEA FILE-HCAPLUS SPE=ON ABB=ON PLU=ON L14 OR L18
L20
             3 SEA FILE-REGISTRY SPE-ON ABB-ON PLU-ON L2 AND
               ?SALT?/CNS
             1 SEA FILE=REGISTRY SPE=ON ABB=ON PLU=ON SODIUM
               SULFATE/CN
              1 SEA FILE=REGISTRY SPE=ON ABB=ON PLU=ON POTASSIUM
                SULFATE/CN
L23
              1 SEA FILE-REGISTRY SPE-ON ABB-ON PLU-ON AMMONIUM
                SULFATE/CN
L24
              1 SEA FILE-REGISTRY SPE-ON ABB-ON PLU-ON MAGNESIUM
               SULFATE/CN
L25
             1 SEA FILE-REGISTRY SPE-ON ABB-ON PLU-ON ALUMINUM
               SULFATE/CN
L26
             1 SEA FILE-REGISTRY SPE-ON ABB-ON PLU-ON SODIUM
               CHLORIDE/CN
L27
              1 SEA FILE=REGISTRY SPE=ON ABB=ON PLU=ON POTASSIUM
               CHLORIDE/CN
```

1 SEA FILE-REGISTRY SPE-ON ABB-ON PLU-ON SODIUM

```
DIHYDROGEN PHOSPHATE/CN
L29
             1 SEA FILE-REGISTRY SPE-ON ABB-ON PLU-ON DIAMMONIUM
               HYDROGEN PHOSPHATE/CN
L30
             1 SEA FILE-REGISTRY SPE-ON ABB-ON PLU-ON DIPOTASSIUM
               HYDROGEN PHOSPHATE/CN
             2 SEA FILE-REGISTRY SPE-ON ABB-ON PLU-ON CALCIUM
               PHOSPHATE/CN
             2 SEA FILE-REGISTRY SPE-ON ABB-ON PLU-ON SODIUM
               CITRATE/CN
             1 SEA FILE=REGISTRY SPE=ON ABB=ON PLU=ON IRON
               SULFATE/CN
L34
             1 SEA FILE-REGISTRY SPE-ON ABB-ON PLU-ON CALCIUM
               NITRATE/CN
             1 SEA FILE-REGISTRY SPE-ON ABB-ON PLU-ON SODIUM
               NITRATE/CN
L36
             1 SEA FILE-REGISTRY SPE-ON ABB-ON PLU-ON AMMONIUM
               NITRATE/CN
             1 SEA FILE-REGISTRY SPE-ON ABB-ON PLU-ON ALUMINUM
               NITRATE/CN
L38
             1 SEA FILE=REGISTRY SPE=ON ABB=ON PLU=ON SODIUM
               THIOCYANATE/CN
1.39
             1 SEA FILE=REGISTRY SPE=ON ABB=ON PLU=ON SODIUM
               TODIDE/CN
            23 SEA FILE-REGISTRY SPE=ON ABB=ON PLU=ON (L20 OR L21
L40
               OR L22 OR L23 OR L24 OR L25 OR L26 OR L27 OR L28 OR
               L29 OR L30 OR L31 OR L32 OR L33 OR L34 OR L35 OR L36
               OR L37 OR L38 OR L39)
1.41
             3 SEA FILE-REGISTRY SPE-ON ABB-ON PLU-ON ("SODIUM
               CITRATE ANHYDROUS"/CN OR "SODIUM CITRATE DIHYDRATE"/CN
               OR "SODIUM CITRATE HYDRATE"/CN)
L42
            24 SEA FILE-REGISTRY SPE-ON ABB-ON PLU-ON L40 OR L41
L43
               STR
                             Cb @6
                     Ak @5
```

VAR G2=14/15
VAR G3=3/9
NODE ATTRIBUTES:
CONNECT IS E1 RC AT 4
CONNECT IS E1 RC AT 5
CONNECT IS E1 RC AT 6
CONNECT IS E1 RC AT 10
CONNECT IS E1 RC AT 10
CONNECT IS E1 RC AT 10
EFAULT MUEVEL IS ALTHITED
ECOUNT IS M1-X12 C AT 15
ECOUNT IS M1-X12 C AT 15
ECOUNT IS M3-X12 C AT 15

Ak@14 Cb@15

VAR G1=5/6

G3 16

GRAPH ATTRIBUTES: RING(S) ARE ISOLATED OR EMBEDDED NUMBER OF NODES IS 16

STEREO ATTRIBUTES: NONE
L5 SCR 1199
L50 SCR 1929 OR 2025 OR 2019 OR 2026 OR 1992 OR 2021 OR 1949
L52 370456 SEA FILE-REGISTRY SSS FUL L43 AND L45 NOT L50
L54 12870 SEA FILE-REGISTRY SPE-ON ABE-ON PLU-ON L52 AND

|      |        | 10/391,034-300094-EIC SEARCH  |  |  |  |  |  |  |  |  |  |  |
|------|--------|---|--|--|--|--|--|--|--|--|--|--|
|      |        | A1/PG   |  |  |  |  |  |  |  |  |  |  |
| L55  | 15     | SEA FILE-REGISTRY SPE-ON ABB-ON PLU-ON L52 AND<br>?AMMONIUM?/CNS  |  |  |  |  |  |  |  |  |  |  |
| L58  | 70107  | SEA FILE-REGISTRY SPE-ON ABB-ON PLU-ON 79-10-7/RN,CR  |  |  |  |  |  |  |  |  |  |  |
| L59  | 1      | SEA FILE-REGISTRY SPE-ON ABB-ON PLU-ON 9003-01-4/RN   |  |  |  |  |  |  |  |  |  |  |
| L61  | 54786  | SEA FILE-REGISTRY SPE-ON ABB-ON PLU-ON 79-41-4/RN,CR  |  |  |  |  |  |  |  |  |  |  |
| L62  | 118683 | SEA FILE=REGISTRY SPE=ON ABB=ON PLU=ON L58 OR L59 OR L61  |  |  |  |  |  |  |  |  |  |  |
| L63  | 20091  | SEA FILE=REGISTRY SPE=ON ABB=ON PLU=ON L62 AND (A1/PG OR ?AMMONIUM?/CNS)  |  |  |  |  |  |  |  |  |  |  |
| L64  | 12559  | SEA FILE-REGISTRY SPE-ON ABB-ON PLU-ON L52 AND ((FORMIC OR ACETIC OR CITRIC OR OXALIC OR MALONIC)/CNS AND ?ACID?/CNS) |  |  |  |  |  |  |  |  |  |  |
| L74  |        | QUE SPE=ON ABB=ON PLU=ON L42  |  |  |  |  |  |  |  |  |  |  |
| L75  | 4262   | SEA FILE-HCAPLUS SPE=ON ABB=ON PLU=ON L9 AND L74  |  |  |  |  |  |  |  |  |  |  |
| L82  |        | OUE SPE=ON ABB=ON PLU=ON L54 OR L55   |  |  |  |  |  |  |  |  |  |  |
| L83  |        | OUE SPE=ON ABB=ON PLU=ON L63  |  |  |  |  |  |  |  |  |  |  |
|      |        |   |  |  |  |  |  |  |  |  |  |  |
| L84  |        | SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON L9 AND (L82 OR L83)   |  |  |  |  |  |  |  |  |  |  |
| L85  | 10249  | SEA FILE-HCAPLUS SPE=ON ABB=ON PLU=ON L9 AND L64  |  |  |  |  |  |  |  |  |  |  |
| L86  | 14383  | SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON L75 OR L84 OR L85   |  |  |  |  |  |  |  |  |  |  |
| L87  | 297    | SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON L86 AND L19   |  |  |  |  |  |  |  |  |  |  |
| L88  | 297    | SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON L87 AND (L13 OR L15 OR L16)   |  |  |  |  |  |  |  |  |  |  |
| L89  | 981    | SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON ?POLYM?(4A)ANI<br>ON?(4A)DISPERS?   |  |  |  |  |  |  |  |  |  |  |
| L90  | 12     | SEA FILE-HCAPLUS SPE=ON ABB=ON PLU=ON L88 AND L89   |  |  |  |  |  |  |  |  |  |  |
| 1.93 |        | SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON L41   |  |  |  |  |  |  |  |  |  |  |
|      |        |   |  |  |  |  |  |  |  |  |  |  |
| L94  |        | SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON L86 AND L93   |  |  |  |  |  |  |  |  |  |  |
| L95  |        | SEA FILE-HCAPLUS SPE=ON ABB=ON PLU=ON L94 AND L89   |  |  |  |  |  |  |  |  |  |  |
| L96  | 25     | SEA FILE-HCAPLUS SPE=ON ABB=ON PLU=ON L86 AND L89   |  |  |  |  |  |  |  |  |  |  |
| L97  | 6017   | SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON L9 AND L61  |  |  |  |  |  |  |  |  |  |  |
| L98  |        | SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON L9 AND L62  |  |  |  |  |  |  |  |  |  |  |
| L99  |        | SEA FILE-HCAPLUS SPE-ON ABB-ON PLU-ON L98 AND L63   |  |  |  |  |  |  |  |  |  |  |
|      |        |   |  |  |  |  |  |  |  |  |  |  |
| L100 |        | SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON L99 AND L89   |  |  |  |  |  |  |  |  |  |  |
| L101 |        | SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON L62(3A)COPOLYM ER   |  |  |  |  |  |  |  |  |  |  |
| L102 | 1424   | SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON L9 AND L101   |  |  |  |  |  |  |  |  |  |  |
| L103 | 9      | SEA FILE-HCAPLUS SPE=ON ABB=ON PLU=ON L102 AND L89  |  |  |  |  |  |  |  |  |  |  |
| L104 | 27     | SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON L90 OR L95 OR L96 OR L100 OR L103   |  |  |  |  |  |  |  |  |  |  |
| L105 | 12     | SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON L104 AND L19  |  |  |  |  |  |  |  |  |  |  |
| L106 |        | SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON L104 OR L105  |  |  |  |  |  |  |  |  |  |  |
|      |        | OR L18  |  |  |  |  |  |  |  |  |  |  |
| L107 |        | SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON ANION? (2A) DISP<br>ERS?  |  |  |  |  |  |  |  |  |  |  |
| L108 |        | SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON L107 AND L106   |  |  |  |  |  |  |  |  |  |  |
| L109 | 12616  | SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON (L97 OR L98 OR L99) OR L102   |  |  |  |  |  |  |  |  |  |  |
| L110 | 27     | SEA FILE-HCAPLUS SPE=ON ABB=ON PLU=ON L109 AND L89  |  |  |  |  |  |  |  |  |  |  |
| L111 | 32     | SEA FILE-HCAPLUS SPE=ON ABB=ON PLU=ON L109 AND L107   |  |  |  |  |  |  |  |  |  |  |
|      |        |   |  |  |  |  |  |  |  |  |  |  |
| L112 | 42     | SEA FILE-HCAPLUS SPE-ON ABB-ON PLU-ON L108 OR L110 OR L111  |  |  |  |  |  |  |  |  |  |  |
| L113 |        | QUE SPE=ON ABB=ON PLU=ON VINYL(A)?LACTAM? OR VINYLL ACTAM?  |  |  |  |  |  |  |  |  |  |  |
| L114 | 4      | SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON L112 AND L113   |  |  |  |  |  |  |  |  |  |  |
| L116 |        | OUE SPE=ON ABB=ON PLU=ON ?LACTAM?   |  |  |  |  |  |  |  |  |  |  |
| L117 |        | OUE SPE=ON ABB=ON PLU=ON LACTAMS/CT   |  |  |  |  |  |  |  |  |  |  |
| L118 | 7      | SEA FILE-HCAPLUS SPE=ON ABB=ON PLU=ON L112 AND  |  |  |  |  |  |  |  |  |  |  |
| PITO | ,      | (L116 OR L117)  |  |  |  |  |  |  |  |  |  |  |
|      |        | (DITO OK DIT/)  |  |  |  |  |  |  |  |  |  |  |

| L119                         | 26 S                        | SEA FILE-HCAPLUS SPE-ON ABB-ON PLU-ON L19 AND (L116   |
|------------------------------|-----------------------------|---|
|                              | C                           | OR L117)  |
| L120                         |                             | SEA FILE-HCAPLUS SPE=ON ABB=ON PLU=ON L112 OR L114  |
|                              | C                           | OR L118 OR L119   |
| L121                         |                             | QUE SPE=ON ABB=ON PLU=ON L2   |
|                              | 416 S                       | SEA FILE-HCAPLUS SPE-ON ABB-ON PLU-ON L19 AND L121  |
| L124                         |                             | SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON L122 AND L89  |
| L125                         | 17 S                        | SEA FILE-HCAPLUS SPE=ON ABB=ON PLU=ON L122 AND L107   |
|                              |                             |   |
| L126                         |                             | SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON L120 AND L89  |
| L127                         | 36 S                        | SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON L120 AND L107   |
|                              |                             |   |
| L128                         |                             | SEA FILE-HCAPLUS SPE=ON ABB=ON PLU=ON (L124 OR L125   |
|                              |                             | OR L126 OR L127)  |
| L129                         |                             | DUE SPE=ON ABB=ON PLU=ON PRODUC? OR PROD# OR GENERA   |
| 1127                         |                             |   |
| 1127                         | Ĩ                           | ? OR MANUF? OR MFR# OR CREAT? OR FORM## OR FORMING# OR  |
| 1127                         | Ĩ                           | I'? OR MANUF? OR MFR# OR CREAT? OR FORM## OR FORMING# OR FORMAT? OR MAKE# OR MADE# OR MAKING# OR FABRICAT? OR S   |
|                              | Ĩ                           | T? OR MANUF? OR MFR# OR CREAT? OR FORM## OR FORMING# OR FORMAT? OR MAKE# OR MADE# OR MAKING# OR FABRICAT? OR SYNTHESI? OR PREPAR? OR PREP# OR PROCESS? OR METHOD?   |
| L130                         | Ĩ                           | I'? OR MANUF? OR MFR# OR CREAT? OR FORM## OR FORMING# OR FORMAT? OR MAKE# OR MADE# OR MAKING# OR FABRICAT? OR S   |
| L130                         | 1<br>40 S                   | POR MANUF? OR MFR# OR CREAT? OR FORM## OR FORMING# OR FORMAT? OR MAKE# OR MADE# OR MAKING# OR FABRICAT? OR SITTEMEST? OR PREPAR? OR PREP# OR PROCESS? OR METHOD? DEA FILE-HCAPLUS SPE-ON ABB-ON PLU-ON L128 AND L129  |
| L130                         | 40 s                        | POR MANUF? OR MFR# OR CREAT? OR FORM## OR FORMING# OR FORMAT? OR MAKE# OR MADD# OR MAKING# OR FABRICAT? OR SINTHEST? OR PREPAR? OR PREP# OR PROCESS? OR METHOD? SEA FILE-HCAPLUS SPE-ON ABB-ON PLU-ON L128 AND L129 QUE SPE-ON ABB-ON PLU-ON PY-<2004 NOT P/DT  |
| L130                         | 40 s                        | POR MANUF? OR MFR# OR CREAT? OR FORM## OR FORMING# OR FORMAT? OR MAKE# OR MADE# OR MAKING# OR FABRICAT? OR SITTEMEST? OR PREPAR? OR PREP# OR PROCESS? OR METHOD? DEA FILE-HCAPLUS SPE-ON ABB-ON PLU-ON L128 AND L129  |
| L130<br>L131<br>L132         | 40 S<br>0 S                 | TO OR MANUF? OR MFR# OR CREAT? OR FORM## OR FORMING# OR FORMATS OR MAKE# OR MADE# OR MAKING# OR FABRICAT? OR SINTHEST? OR PREPAR? OR PREP# OR PROCESS? OR METHOD? SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON L128 AND L129 DUE SPE=ON ABB=ON PLU=ON PY=<2004 NOT P/DT SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON L130 AND L131  |
| L130                         | 40 s<br>0 s                 | PO OR MAIUF? OR MER# OR CREAT? OR FORM## OR FORMING OR FORMATO OR MAKE# OR MADE# OR MAKIMG OR FABECAT? OR S'INTHESI? OR PREPAR? OR PREP# OR PROCESS? OR METHOD? SEA FILE=HCAPLUS SPE=OH ABB=ON PLU=ON L128 AND L129 QUE SPE=OH ABB=ON PLU=ON P/C-2004 NOT P/DT SEA FILE=HCAPLUS SPE=OH ABB=ON PLU=ON L130 AND L131 QUE SPE=ON ABB=ON PLU=ON L130 AND L131 QUE SPE=ON ABB=ON PLU=ON CONTROL OR PRY=<2004 OR |
| L130<br>L131<br>L132<br>L133 | 40 s<br>0 s                 | TO OR MAINUF? OR MFR# OR CREAT? OR FORM## OR FORMING OR FORMATO R MAKE# OR MADE# OR MAKIMG OR FABLEAT? OR S. INTHESIT? OR PREPAR? OR PREP# OR PROCESS? OR METHOD? S. TOWN OF THE OR PROCESS? OR METHOD? S. TOWN OF THE OR PROCESS? OR METHOD?  DUE SPE—ON ABB—ON PLU—ON PY—<2004 NOT P/DT SEA FILE-HCAPLUS SPE—ON ABB—ON PLU—ON LI30 AND LI31  DUE SPE—ON ABB—ON PLU—ON (PY—<2004 OR PRY—<2004 OR PRY—<2004 OR MY—<2004 OR MY—  |
| L130<br>L131<br>L132         | 40 s<br>0 s                 | PO OR MAIUF? OR MER# OR CREAT? OR FORM## OR FORMING OR FORMATO OR MAKE# OR MADE# OR MAKIMG OR FABECAT? OR S'INTHESI? OR PREPAR? OR PREP# OR PROCESS? OR METHOD? SEA FILE=HCAPLUS SPE=OH ABB=ON PLU=ON L128 AND L129 QUE SPE=OH ABB=ON PLU=ON P/C-2004 NOT P/DT SEA FILE=HCAPLUS SPE=OH ABB=ON PLU=ON L130 AND L131 QUE SPE=ON ABB=ON PLU=ON L130 AND L131 QUE SPE=ON ABB=ON PLU=ON CONTROL OR PRY=<2004 OR |
| L130<br>L131<br>L132<br>L133 | 40 s<br>40 s<br>0 s<br>20 s | TO OR MAINUF? OR MFR# OR CREAT? OR FORM## OR FORMING OR FORMATO R MAKE# OR MADE# OR MAKIMG OR FABLEAT? OR S. INTHESIT? OR PREPAR? OR PREP# OR PROCESS? OR METHOD? S. TOWN OF THE OR PROCESS? OR METHOD? S. TOWN OF THE OR PROCESS? OR METHOD?  DUE SPE—ON ABB—ON PLU—ON PY—<2004 NOT P/DT SEA FILE-HCAPLUS SPE—ON ABB—ON PLU—ON LI30 AND LI31  DUE SPE—ON ABB—ON PLU—ON (PY—<2004 OR PRY—<2004 OR PRY—<2004 OR MY—<2004 OR MY—  |

#### STRUCTURE SEARCH RESULTS

-> d his 1137

(FILE 'HCAPLUS' ENTERED AT 11:16:13 ON 28 AUG 2009) L137 8 S L135 AND L136

=> d 1137 1-8 ibib ed abs hitstr hitind

L137 ANSWER 1 OF 8 HCAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 2005:1154598 HCAPLUS Full-text

DOCUMENT NUMBER: 143:423028

TITLE: Method for producing a

IIILE: Method for producing a water-in-water polyvinyllactam

dispersion by radical polymerization in presence of

salts and amionic

dispersants

INVENTOR(S): Chrisstoffels, Lysander; Widmaier, Ralf;

Garcia, Castro Ivette; Wegmann, Ludger
PATENT ASSIGNEE(S): Basf Aktiengesellschaft, Germany; Garcia

Castro, Ivette

SOURCE: PCT Int. Appl., 26 pp.
CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1 PATENT INFORMATION:

| PATENT NO.      |      |           |     |             | KIND DATE   |     |      | 2    | DATE                 |      |        |      |      |              |      |  |  |
|-----------------|------|-----------|-----|-------------|-------------|-----|------|------|----------------------|------|--------|------|------|--------------|------|--|--|
|                 |      |           |     |             |             |     |      |      |                      |      |        |      |      |              |      |  |  |
| WO              | 2005 | -<br>1004 | 15  |             | A1          |     | 2005 | 1027 | 1                    | WO 2 | 005-   | EP39 | 15   |              |      |  |  |
|                 |      |           |     |             |             |     |      |      |                      |      |        |      |      | 2005<br>0414 |      |  |  |
|                 |      |           |     |             |             |     |      |      |                      |      |        |      |      |              |      |  |  |
|                 |      |           |     |             |             |     | 2.77 |      |                      |      | <br>Ba | D.O. | D.C. | D11          |      |  |  |
|                 | w:   |           |     |             |             |     | AU,  |      |                      |      |        |      |      |              |      |  |  |
|                 |      |           |     |             |             |     | GH,  |      |                      |      |        |      |      |              |      |  |  |
|                 |      |           |     |             |             |     | KZ,  |      |                      |      |        |      |      |              |      |  |  |
|                 |      |           |     |             |             |     | MX.  |      |                      |      |        |      |      |              |      |  |  |
|                 |      |           |     |             |             |     | SD,  |      |                      |      |        |      |      |              |      |  |  |
|                 |      |           |     |             |             |     | UG.  |      |                      |      |        |      |      |              |      |  |  |
|                 | RW:  |           |     |             |             |     | MW,  |      |                      |      |        |      |      |              |      |  |  |
|                 |      |           |     |             |             |     | KZ,  |      |                      |      |        |      |      |              |      |  |  |
|                 |      | CY,       | CZ, | DE,         | DK,         | EE, | ES,  | FI,  | FR,                  | GB,  | GR,    | HU,  | IE,  | IS,          | IT,  |  |  |
|                 |      | LT,       | LU, | MC,         | NL,         | PL, | PT,  | RO,  | SE,                  | SI,  | SK,    | TR,  | BF,  | ВJ,          | CF,  |  |  |
|                 |      |           |     |             |             |     | GQ,  |      |                      |      |        |      |      |              |      |  |  |
| DE 102004019179 |      |           |     | A1 20051110 |             |     |      |      | DE 2004-102004019179 |      |        |      |      |              |      |  |  |
|                 |      |           |     |             |             |     |      |      |                      |      |        |      |      |              | 2004 |  |  |
|                 |      |           |     |             |             |     |      |      |                      |      |        |      |      |              | 0416 |  |  |
|                 |      |           |     |             | A1 20070110 |     |      |      |                      |      |        |      |      |              |      |  |  |
| EΡ              | 1740 | 624       |     |             | A1          |     | 2007 | 0110 | 1                    | EP 2 | 005-   | 7394 | 03   |              |      |  |  |
|                 |      |           |     |             |             |     |      |      |                      |      |        |      |      |              | 2005 |  |  |
|                 |      |           |     |             |             |     |      | <    |                      |      |        |      | 0414 |              |      |  |  |
| ED              | 1740 | c 2 4     |     |             | D.1         |     | 2007 | 0005 |                      | <    |        |      |      |              |      |  |  |
| DP.             |      |           |     |             |             |     | CZ.  |      | DΕ                   | PP   | PC     | ET   | ED   | CD           | CD   |  |  |
|                 | к.   |           |     |             |             |     | LT,  |      |                      |      |        |      |      |              |      |  |  |
|                 |      | SK.       |     | 13,         | 11,         | ы,  | ы,   | шо,  | ric,                 | 141. | EL,    | FI,  | NO,  | JE,          | SI,  |  |  |
| тя              | 3723 |           | 110 |             | т           |     | 2007 | 0915 |                      | AT 2 | 005-   | 7394 | 0.3  |              |      |  |  |
|                 | 0.00 |           |     |             | -           |     |      |      |                      |      |        |      |      |              | 2005 |  |  |
|                 |      |           |     |             |             |     |      |      |                      |      |        |      |      |              | 0414 |  |  |
|                 |      |           |     |             |             |     |      |      | <                    |      |        |      |      |              |      |  |  |
| JΡ              | 2007 | 5327      | 34  |             | T           |     | 2007 | 1115 |                      | JP 2 | 007-   | 5077 | 54   |              |      |  |  |
|                 |      |           |     |             |             |     |      |      |                      |      |        |      |      |              | 2005 |  |  |
|                 |      |           |     |             |             |     |      |      |                      |      |        |      |      |              |      |  |  |

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10/591.654-306094-EIC SEARCH
                                                                   0414
    US 20070154438 A1
                               20070705
                                            US 2006-591654
                                                                   2006
                                                                   0905
                                            DE 2004-102004019179A
PRIORITY APPLN INFO .
                                                                   2004
                                                                   0416
                                            WO 2005-EP3915
                                                                   2005
                                                                   0414
                       MARPAT 143:423028
OTHER SOURCE(S):
ED Entered STN: 28 Oct 2005
     A method for producing water-in-water polyvinyllactam dispersions with a K value of \geq
     120 in aqueous reaction media in the presence of amionic polymer dispersants and
     saturated with organic or inorg. salts by radical polymn of N-vinyl-2-pyrrolidone is
     described. The homo- or copolymers of ethylenically unsatd. C1-15 carboxylic acids, or
     sulfonic acids or their corresponding salts are used as anionic polymer dispersants.
     The prepared aqueous dispersions of polyvinyllactams can be used in cosmetics,
     pharmaceuticals, adhesives, heat carrier ligs., as well as in formulations for
     coatings, thinners, adsorbents, binders, ceramics, plastics and metalworking. Thus, a
     polyvinyllactam dispersion was prepared by dissolving 63.4 g of sodium sulfate in 330 g
     of deionized water containing 148 g of 20 % aqueous solution of hydrolyzed acrylic
     acid-vinylformamide copolymer (9:1 ratio) treated with NaOH, adding 5 % solution of
     sulfuric acid till pH of 6.8, heating this mixture at 60° for 2 h and 40 min, adding
     233.4 g of N-vinyl-2-pyrrolidone, followed in 5 min by solution of 0.35 g of 2,2'-
     azobis(2-methylpropanimidamide) dichloride (V 50) in 55.9 g of deionized water, keeping
     reaction vessel at 60° for 3 h, heating reaction mixture to 75° and adding solution of
     0.7 g of V 50 in 13 g of deionized water, and keeping at 75° for two hours; the K value
     of the obtained polyvinyllactam dispersion was 141, the viscosity was 10.3 Pas with
     solids content of 27.65.
     134367-40-1D, hydrolyzed, sodium salt
     RL: NUU (Other use, unclassified); USES (Uses)
        (anionic dispersant; water-in-water
        polyvinyllactem dispersions prepared
       by radical polymerization in aqueous media containing
       anionic polymer dispersants and
       saturated with salts)
     134367-40-1 HCAPLUS
   2-Propenoic acid, polymer with N-ethenylformamide (CA INDEX NAME)
    CM
    CRN 13162-05-5
     CMF C3 H5 N O
 H 2 C ___ CH __ NH __ CH ___ O
    CM 2
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CRN 79-10-7 CMF C3 H4 02

```
28133-65-5, Maleic anhydride-methylvinylether
     copolymer, sodium salt
     RL: NUU (Other use, unclassified); USES (Uses)
        (anionic dispersion media; water-in-water
        polyvinyllactam dispersions prepared
        by radical polymerization in aqueous media containing
        anionic polymer dispersants and
        saturated with salts)
RN
    28133-65-5 HCAPLUS
CN
    2,5-Furandione, polymer with methoxyethene, sodium salt (CA INDEX
     NAME)
     CM 1
     CRN 9011-16-9
     CMF (C4 H2 O3 . C3 H6 O) x
CCI PMS
          СМ
             2
          CRN 108-31-6
          CMF C4 H2 O3
          CM
             3
          CRN 107-25-5
          CMF C3 H6 O
 H 2 C___ CH_ O_ CH 3
   2997-92-4, V 50
     RL: CAT (Catalyst use); USES (Uses)
        (water-in-water polyvinyllactem dispersions
        prepared by radical polymerization in aqueous media containing
        anionic polymer dispersants and
        saturated with salts)
RN 2997-92-4 HCAPLUS
     Propanimidamide, 2,2'-(1,2-diazenediyl)bis[2-methyl-,
     hydrochloride (1:2) (CA INDEX NAME)
      ■2 HCl
```

9003-39-8P, N-Vinvl-2-pyrrolidone homopolymer RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (water-in-water polyvinyllactam dispersions prepared by radical polymerization in aqueous media containing anionic polymer dispersants and saturated with salts) 9003-39-8 HCAPLUS RN 2-Pyrrolidinone, 1-ethenyl-, homopolymer (CA INDEX NAME) CM 1 CRN 88-12-0 CMF C6 H9 N O 6132-04-3, Trisodium citrate dihydrate 7757-82-6, Sodium sulfate, uses RL: NUU (Other use, unclassified); USES (Uses) (water-in-water polyvinyllactam dispersions prepared by radical polymerization in aqueous media containing anionic polymer dispersants and saturated with salts) 6132-04-3 HCAPLUS RN CN 1,2,3-Propanetricarboxylic acid, 2-hydroxy-, sodium salt, hydrate (1:3:2) (CA INDEX NAME) ●3 Na

RN 7757-82-6 HCAPLUS

■2 H<sub>2</sub>O

CN Sulfuric acid sodium salt (1:2) (CA INDEX NAME)

но**\_ Ц**\_ он

■2 Na

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TC
    ICM C08F026-10
     ICS C08F002-20
    37-3 (Plastics Manufacture and Processing)
     polyvinyllectsm aq dispersion prepn
     salt anionic polymer
    dispersent media
TT
   Lacrama
    RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical
     or engineered material use); PREP (Preparation); USES (Uses)
        (N-vinvl. polymers: water-in-water polyvinvllactem
        dispersions prepared by radical polymn
        . in aqueous media containing amionic polymer
        dispersants and saturated with salts)
    Dispersing agents
        (anionic; water-in-water polyvinyllactam
       dispersions prepared by radical polymn
        . in aqueous media containing anionic polymer
        dispersents and saturated with salts for use in)
   Disperse systems
        (aqueous; water-in-water polyvinyllactam
       dispersions prepared by radical polymn
        . in aqueous media containing anionic polymer
        dispersants and saturated with salts)
     Polymerization
        (dispersion, radical; water-in-water
       polyvinyllactam dispersions prepared
       by radical polymerization in aqueous media containing
       anionic polymer dispersents and
       saturated with salts)
    Quenching materials
        (metalworking; water-in-water polyvinyllactam
        dispersions prepared by radical polymn
        . in aqueous media containing amionic polymer
        dispersants and saturated with salts for use in)
тт
    Salts, uses
     RL: NUU (Other use, unclassified); USES (Uses)
        (organic and inorg.; water-in-water polyvinyllactam
        dispersions prepared by radical polymn
        . in aqueous media containing amionic polymer
        dispersants and saturated with salts)
    Polymerization catalysts
        (radical, dispersion; water-in-water
        polyvinyllactam dispersions prepared
        by radical polymerization in aqueous media containing
        anionic polymer dispersants and
        saturated with salts)
     Carboxvlic acids, uses
     RL: NUU (Other use, unclassified); USES (Uses)
        (salts, C1-C15; water-in-water
       polyvinyllactem dispersions prepared
       by radical polymerization in aqueous media containing
       anionic polymer dispersants and
       saturated with salts)
    Metalworking
        (water-in-water polyvinyllactam dispersions
       prepared by radical polymerization in aqueous media containing
       anionic polymer dispersants and
       saturated with salts)
    Adhesives
     Adsorbents
     Binders
     Coating materials
     Coolants
     Cosmetics
     Detergents
    Drugs
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Inks

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Pigments, nonbiological
     Thickening agents
        (water-in-water polyvinyllactam dispersions
        prepared by radical polymerization in aqueous media containing
        anionic polymer dispersants and
        saturated with salts for use in)
     Plastics, miscellaneous
     RL: MSC (Miscellaneous)
        (water-in-water polyvinyllactam dispersions
        prepared by radical polymerization in aqueous media containing
        anionic polymer dispersents and
        saturated with salts for use in)
     Ceramics
        (water-in-water polyvinyllactem dispersions
        prepared by radical polymerization in aqueous media containing
        anionic polymer dispersants and
        saturated with salts for use in in formulations for)
     134367-40-1D, hydrolyzed, sodium salt
     RL: NUU (Other use, unclassified); USES (Uses)
        (anionic dispersant; water-in-water
        polyvinyllactem dispersions prepared
        by radical polymerization in aqueous media containing
        anionic polymer dispersants and
        saturated with salts)
    28133-65-5, Maleic anhydride-methylvinylether
     copolymer, sodium salt
     RL: NUU (Other use, unclassified); USES (Uses)
        (anionic dispersion media; water-in-water
        polyvinyllactam dispersions prepared
        by radical polymerization in aqueous media containing
        anionic polymer dispersents and
        saturated with salts)
     2997-92-4, V 50
     RL: CAT (Catalyst use); USES (Uses)
        (water-in-water polyvinyllactsm dispersions
        prepared by radical polymerization in aqueous media containing
        anionic polymer dispersants and
        saturated with salts)
     9003-39-8P, N-Viny1-2-pyrrolidone homopolymer
     RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical
     or engineered material use); PREP (Preparation); USES (Uses)
        (water-in-water polyvinyllactam dispersions
        prepared by radical polymerization in aqueous media containing
        anionic polymer dispersants and
        saturated with salts)
     6132-04-3, Trisodium citrate dihydrate
     7757-82-6, Sodium sulfate, uses
     RL: NUU (Other use, unclassified); USES (Uses)
        (water-in-water polyvinyllactam dispersions
        prepared by radical polymerization in aqueous media containing
        anionic polymer dispersants and
        saturated with salts)
                               THERE ARE 6 CITED REFERENCES AVAILABLE
REFERENCE COUNT:
                               FOR THIS RECORD. ALL CITATIONS AVAILABLE
                               IN THE RE FORMAT
L137 ANSWER 2 OF 8 HCAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER:
                        2005:459559 HCAPLUS Full-text
DOCUMENT NUMBER:
                         143:154192
TITLE:
                         A method for synthesizing
                        anionic or/and nonionic water-soluble
                         polymeric dispersions
INVENTOR(S):
                         Wang, Pixin
PATENT ASSIGNEE(S):
                        Peop. Rep. China
SOURCE:
                         Faming Zhuanli Shenging Gongkai Shuomingshu,
                         No pp. given
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тт

TT

CODEN: CNXXEV

DOCUMENT TYPE: Patent
LANGUAGE: Chinese
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO, KIND DATE APPLICATION NO. DATE

CN 1519259 A 20040811 CN 2003-127128 2003

2003 0903

PRIORITY APPLN. INFO.: CN 2003-127128

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0903

2003

D Entered STN: 31 May 2005

AB The title dispersion contains 30-100% (meth)acrylamide monomer and 0-70% a monomer represented by a general formula: R2CH:KERI(AYI), wherein R1-H, CH3 or COOCHS, R2-H or COOY2, A=503 or CONHC(CH3)2CH2SO3, Y1, Y2-H or cation. Thus, 17.6 g acrylac acid (60%) was polymerized with 189.1 g acrylamide (50%) in the presence of 18.6 g a acrylamide-N,N-dimethylacrylamide copolymer (20%) and ammonium sulfate, sodium sulfite and ammonium peroxysulfate to give a title dispersion with particle size 5-10 um.

IT 9003-39-8, Polyvinylpyrrolidone 26124-23-2,

Acrylamide-N-vinylpyrrolidone copolymer RL: NUU (Other use, unclassified); USES (Uses)

(preparation of anionic or/and nonionic water-soluble polymeric dispersions)

RN 9003-39-8 HCAPLUS

CM 1

CN 2-Pyrrolidinone, 1-ethenyl-, homopolymer (CA INDEX NAME)

z-ryllolidinone,

CRN 88-12-0 CMF C6 H9 N O

RN 26124-23-2 HCAPLUS

CN 2-Propenamide, polymer with 1-ethenyl-2-pyrrolidinone (CA INDEX NAME)

CM 1

CRN 88-12-0 CMF C6 H9 N O

CM 2

```
CRN 79-06-1
CMF C3 H5 N O
 Hon_U_CH_CHo
IT 9003-06-9P, Acrylic acid-acrylamide copolymer
     38808-69-49, Acrylamide-acrylic acid-itaconic acid copolymer 78474-98-39, Acrylamide-acrylic
     acid-2-acrylamido-2-methylpropanesulfonic acid copolymer
     RL: SPN (Synthetic preparation); PREP (Preparation)
        (preparation of anionic or/and nonionic water-soluble
        polymeric dispersions)
    9003-06-9 HCAPLUS
CN 2-Propenoic acid, polymer with 2-propenamide (CA INDEX NAME)
     CM 1
     CRN 79-10-7
CMF C3 H4 O2
 но_ _ Сн__ сн2
     CM 2
     CRN 79-06-1
     CMF C3 H5 N O
 Hon_U_CH_CHo
RN 38808-69-4 HCAPLUS
     Butanedioic acid, 2-methylene-, polymer with 2-propenamide and
     2-propenoic acid (CA INDEX NAME)
     CM 1
     CRN 97-65-4
     CMF C5 H6 O4
 CH2
HO2C_U_CH2_CO2H
     CM 2
```

```
CRN 79-10-7
CMF C3 H4 O2
```

CM 3

CRN 79-06-1 CMF C3 H5 N O

RN 78474-98-3 HCAPLUS

CN 2-Propenoic acid, polymer with

2-methyl-2-[(1-oxo-2-propen-1-y1)amino]-1-propanesulfonic acid and 2-propenamide (CA INDEX NAME)

CM 1

CRN 15214-89-8 CMF C7 H13 N O4 S

CM 2

CRN 79-10-7 CMF C3 H4 O2

CM 3

CRN 79-06-1 CMF C3 H5 N O

```
Hon_U_CH_CHo
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PATENT INFORMATION:

```
ICM C08F002-24
     ICS C08F016-04
     37-3 (Plastics Manufacture and Processing)
ST
     acrylamide water soluble polymeric dispersion prepn
     Polymerization
        (dispersion; preparation of anionic
        or/and nonionic water-soluble polymeric dispersions)
     Dispersing agents
     Dispersion (of materials)
        (preparation of anionic or/and nonionic water-soluble
        polymeric dispersions)
     Polyoxyalkylenes, uses
     RL: NUU (Other use, unclassified); USES (Uses)
        (preparation of anionic or/and nonionic water-soluble
        polymeric dispersions)
     Polymers, preparation
     RL: SPN (Synthetic preparation); PREP (Preparation)
        (water-soluble; preparation of anionic or/and nonionic
        water-soluble polymeric dispersions)
     30973-80-9. Acrylamide-N.N-dimethylacrylamide copolymer
     RL: NUU (Other use, unclassified): USES (Uses)
        (dispersing agent; preparation of
        anionic or/and nonionic water-soluble polymeric
        dispersions)
тт
     7727-54-0, Ammonium peroxysulfate
                                        7757-83-7. Sodium sulfite
     RL: CAT (Catalyst use): USES (Uses)
        (preparation of anionic or/and nonionic water-soluble
        polymeric dispersions)
     57-55-6, Propylene glycol, uses 107-21-1, Ethylene glycol, uses
     115-77-5, Pentaerythritol, uses 9002-89-5, Poly(vinyl alcohol)
     9003-39-8, Polyvinylpyrrolidone 25322-68-3, Polyethylene
     glycol 26124-23-2, Acrylamide-N-vinylpyrrolidone
     copolymer 53694-15-8, Polyethylene glycol sorbitol ether
     RL: NUU (Other use, unclassified); USES (Uses)
        (preparation of anionic or/and nonionic water-soluble
        polymeric dispersions)
TT
     9003-05-8P, Polyacrylamide
                                 9003-06-9P, Acrylic
                                 38808-69-4P,
     acid-acrylamide copolymer
     Acrylamide-acrylic acid-itaconic acid copolymer
     78474-98-3P, Acrylamide-acrylic
     acid-2-acrylamido-2-methylpropanesulfonic acid copolymer
     RL: SPN (Synthetic preparation); PREP (Preparation)
        (preparation of anionic or/and nonionic water-soluble
        polymeric dispersions)
L137 ANSWER 3 OF 8 HCAPLUS COPYRIGHT 2009 ACS on STN
                        2003:257907 HCAPLUS Full-text
ACCESSION NUMBER:
DOCUMENT NUMBER:
                         138:256010
TITLE:
                         Dispersions of inorganic
                         particle-containing water-soluble polymer
                         particles with good dispersion
                         stability and their manufacture
INVENTOR(S):
                         Kubota, Isamu; Wakatsuki, Shoqo
PATENT ASSIGNEE(S):
                         Hymo Corporation, Japan
SOURCE:
                         Jpn. Kokai Tokkyo Koho, 8 pp.
                         CODEN: JKXXAF
DOCUMENT TYPE:
                         Patent
LANGUAGE:
                         Japanese
FAMILY ACC. NUM. COUNT: 1
```

| PATENT NO.             | KIND | DATE     | APPLICATION NO.     | DATE         |
|------------------------|------|----------|---------------------|--------------|
| JP 2003096112          | A    | 20030403 | JP 2001-292765      | 2001<br>0926 |
| PRIORITY APPLN. INFO.: |      |          | <<br>JP 2001-292765 | 2001<br>0926 |
|                        |      |          |                     |              |

ED Entered STN: 03 Apr 2003

AB Title dispersions with particle size \$100 µm, useful as additives for waste water treatment, papermaking, etc., are menufactured by dispersion polymerization of HCR2:CRIAY1 (Rl = H, Me, COZMe; A = 503, CGH4303, COHHCMeZCHZSO3, CGH4CO2, CO2; R2 = H, COZY2; Y1, Y2 = H, cation) 0-100, (meth) acrylamide 0-100, and polymerizable nonionic monomers 0-30 mol% in aqueous salte in the presence of inorg. particles and polymer dispersants soluble in the solns. Thus, partially neutralized acrylic acid was polymerized with acrylamide in aqueous (HH4)2SO4 in the presence of bentonite and partially neutralized acrylamido-2-methylpropanesulfonic acid polymer to give a dispersion with particle size 2-20 µm, viscosity 610 mPa-s, and good stability when stored for 3 mo.

IT 9003-39-8, Poly(N-vinylpyrrolidone)

RL: NUU (Other use, unclassified); USES (Uses)
(dispersant; manufacture of stable
dispersions by dispersion polymerisation
of anionic acrylic monomers in aqueous salts in

presence of inorg. particles and polymer dispersants) RN 9003-39-8 HCAPLUS

CN 2-Pyrrolidinone, 1-ethenyl-, homopolymer (CA INDEX NAME)

CM

CRN 88-12-0 CMF C6 H9 N O



IT 9003-05-9P, Acrylamide-acrylic acid copolymer
62649-23-4P, Acrylamide-acrylic acid-sodium acrylate
copolymer 494852-63-0P, Acrylamide-acrylic
acid-itaconic acid-sodium acrylate-sodium itaconate copolymer
RL: IMF (Industrial manufacture); PREP (Preparation)
(manufacture of stable dispersions by
dispersion polymerization of anionic

acrylic monomers in aqueous salts in presence of inorg. particles and polymer dispersants)

RN 9003-06-9 HCAPLUS CN 2-Propenoic acid.

2-Propenoic acid, polymer with 2-propenamide (CA INDEX NAME)

CM

CRN 79-10-7

CMF C3 H4 O2

```
HO_U_CH__CH2
      CM 2
      CRN 79-06-1
CMF C3 H5 N O
  H2N_U_CH_CH2
RN 62649-23-4 HCAPLUS
CN 2-Propenoic acid, polymer with 2-propenamide and sodium 2-propenoate (1:1) (CA INDEX NAME)
      CM 1
      CRN 7446-81-3
      CMF C3 H4 O2 . Na
      ● Na
      CM 2
      CRN 79-10-7
      CMF C3 H4 O2
      CM 3
      CRN 79-06-1
      CMF C3 H5 N O
  H2N_U_CH_CH2
```

- CN Butanedioic acid, methylene-, polymer with 2-propenamide, 2-propenoic acid, sodium methylenebutanedioate and sodium 2-propenoate (9CI) (CA INDEX NAME)
  - CM 1
  - CRN 50976-31-3
  - CMF C5 H6 O4 . x Na
- CH2 HO2C\_\_\_CH2\_\_CO2H
  - ●ĸ Na
  - CM 2
  - CRN 7446-81-3 CMF C3 H4 O2 . Na
- ... ...
  - Na
  - CM 3
  - CRN 97-65-4 CMF C5 H6 O4
- сн2 но2с\_**L**\_сн2\_со2н
  - CM 4
  - CRN 79-10-7
  - CMF C3 H4 O2
- но**\_й\_**сн**\_**св;
  - CM 5
  - CRN 79-06-1

CMF C3 H5 N O

IT 7757-82-6, Sodium sulfate, uses 7783-20-2,
Ammonium sulfate, uses
RI: NUU (other use, unclassified); USES (Uses)
(menufacture of stable dispersions by
dispersion polymerizetion of anionic
acrylic monomers in aqueous salts in presence of inorg.
PR 7757-82-6 HCAPU.

RN //5/-82-6 HCAPLUS

CN Sulfuric acid sodium salt (1:2) (CA INDEX NAME)

**●**2 N

- RN 7783-20-2 HCAPLUS
- CN Sulfuric acid ammonium salt (1:2) (CA INDEX NAME)

■2 NH3

- IC ICM C08F002-44
- ICS C08F002-16; C08F292-00
- CC 37-3 (Plastics Manufacture and Processing)
- ST dispersion inorg particle anionic polymer; salt water dispersion

polymm inorg particle; acrylate acrylamide copolymer

manuf bentonite ammonium sulfate; dispersant acrylamidomethylpropanesulfonic acid polymer dispersion

polymn

IT Polymerization (dispersion; manufacture of stable

dispersions by dispersion polymerization of anionic acrylic monomers in aqueous salts in presence of inorg. particles and polymer dispersants)

IT Polymerization
(graft; manufacture of stable dispersions by

dispersion polymerization of anionic acrylic monomers in aqueous salts in presence of inorg.

particles and polymer dispersants) IT Disperse systems

Dispersing agents

```
(menufacture of stable dispersions by
       dispersion polymerization of anionic
       acrylic monomers in aqueous salts in presence of inorq.
       particles and polymer dispersants)
   Salts, uses
     RL: NUU (Other use, unclassified); USES (Uses)
        (manufacture of stable dispersions by
       dispersion polymerization of enionic
       acrylic monomers in aqueous salts in presence of inorg.
       particles and polymer dispersants)
    Bentonite, preparation
     Kaolin, preparation
     RL: IMF (Industrial manufacture); PREP (Preparation)
        (polymers, graft; manufacture of stable
        dispersions by dispersion polymerization
       of amionic acrylic monomers in aqueous salts in
       presence of inorg, particles and polymer dispersants)
     9003~39~8, Poly(N-vinylpyrrolidone) 26062-79-3,
     Poly(dimethyldiallylammonium chloride) 38599-26-7D, neutralized
     54076-97-0, Poly(acryloyloxyethyltrimethylammonium chloride)
     RL: NUU (Other use, unclassified); USES (Uses)
        (dispersant; manufacture of stable
       dispersions by dispersion polymerization
       of anionic acrylic monomers in aqueous salts in
       presence of inorg. particles and polymer dispersants)
    9003-05-8P, Polyacrylamide 9003-06-9P,
    Acrylamide-acrylic acid copolymer 62649-23-49
     , Acrylamide-acrylic acid-sodium acrylate copolymer
     494852-63-0P, Acrylamide-acrylic acid-itaconic acid-sodium
     acrylate-sodium itaconate copolymer
     RL: IMF (Industrial manufacture); PREP (Preparation)
        (manufacture of stable dispersions by
        dispersion polymerization of anionic
        acrylic monomers in aqueous salts in presence of inorq.
       particles and polymer dispersents)
    7757-82-6, Sodium sulfate, uses 7783-20-2,
     Ammonium sulfate, uses
     RL: NUU (Other use, unclassified); USES (Uses)
        (manufacture of stable dispersions by
        dispersion polymerization of anionic
        acrylic monomers in aqueous salts in presence of inorg.
       particles and polymer dispersants)
     7631-86-9, White carbon, reactions
     RL: RCT (Reactant); RACT (Reactant or reagent)
        (manufacture of stable dispersions by
        dispersion polymerization of anionic
        acrylic monomers in aqueous salts in presence of inorg.
        particles and polymer dispersants)
L137 ANSWER 4 OF 8 HCAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2002:792296 HCAPLUS Full-text
DOCUMENT NUMBER:
                        137:295672
                        Stable anionic water-soluble
TITLE:
                        polymer dispersions and
                        their manufacture by
                        dispersion polymerization
INVENTOR(S):
                       Wang, Pi-Xin
PATENT ASSIGNEE(S):
                      Hymo Corporation, Japan
                        Jpn. Kokai Tokkyo Koho, 8 pp.
SOURCE:
                        CODEN: JKXXAF
DOCUMENT TYPE:
                       Patent
LANGUAGE:
                        Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:
```

JP 2002302521 A 20021018 JP 2001-158249 2001 0528 PRIORITY APPLN. INFO.: JP 2001-21304 2001 0130 <--Entered STN: 18 Oct 2002 ED AB The dispersions with polymer particle size ≤100 µm, useful for flocculants, are

manufactured by dispersion-polymerizing monomer mixts., which comprise (A) CH2:CR1AX (R1 = Me, H; A = S03, C6H4S03, C0NHCMe2CH2S03, C0NHC2H4S03, C02C2H4S03; X = cation) 1-30, (B) CHR3:CR2AY (R2 = H, Me, carboxyl; R3 = H, carboxyl; A = CO2, C6H4CO2; Y = cation) 5-50, (C) (meth)acrylamide 20-94, and (D) other nonionic comonomers 0-20 mol%, in aqueous sait solns. in the presence of polymer dispersants soluble to the sait solns. Thus, partially neutralizing a monomer mixture comprising acrylamide, 2acrylamido-2-methylpropanesulfonic acid, and acrylic acid with NaOH and dispersionpolyma . the monomers in the presence of

2-acrylamido-2-methylpropanesulfonic acid-methacrylic acid copolymer gave a dispersion showing particle size 5-50 µm, viscosity 830 mPa-s, and Mw 1.05 + 107.

9003-39-8, Polyvinyl pyrrolidone 76404-20-1,

2-Acrylamido-2-methylpropanesulfonic acid-methacrylic acid copolymer

RL: NUU (Other use, unclassified); USES (Uses) (dispersants: manufacture of stable

anionic water-soluble polymer dispersions by dispersion polymerization)

RN 9003-39-8 HCAPLUS

CN

2-Pyrrolidinone, 1-ethenyl-, homopolymer (CA INDEX NAME)

CM 1

CRN 88-12-0 CMF C6 H9 N O



RN 76404-20-1 HCAPLUS

2-Propenoic acid, 2-methyl-, polymer with CN 2-methyl-2-[(1-oxo-2-propen-1-yl)amino]-1-propanesulfonic acid (CA INDEX NAME)

CM 1

CRN 15214-89-8 CMF C7 H13 N O4 S

```
CM 2
    CRN 79-41-4
    CMF C4 H6 O2
 Me_U_CO2H
   458721-70-29, Acrylamide-2-acrylamido-2-
    methylpropanesulfonic acid-acrylic acid-sodium
    2-acrylamido-2-methylpropanesulfonate-sodium acrylate
    copolymer
    RL: IMF (Industrial manufacture); TEM (Technical or engineered
    material use); PREP (Preparation); USES (Uses)
       (manufacture of stable anionic water-soluble
       polymer dispersions by dispersion
       polymerization)
    468721-70-2 HCAPLUS
RN
CN
    2-Propenoic acid, polymer with
    2-methyl-2-[(1-oxo-2-propenyl)amino]-1-propanesulfonic acid,
    2-methyl-2-[(1-oxo-2-propenyl)amino]-1-propanesulfonic acid
    monosodium salt, 2-propenamide and sodium 2-propenoate (9CI) (CA
    INDEX NAME)
    CM 1
    CRN 15214-89-8
    CMF C7 H13 N O4 S
    CM 2
    CRN 7446-81-3
    CMF C3 H4 O2 . Na
    CM 3
    CRN 5165-97-9
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CMF C7 H13 N O4 S . Na

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CM 4
    CRN 79-10-7
    CMF C3 H4 O2
 но____ сн___ сн_
    CM 5
    CRN 79-06-1
    CMF C3 H5 N O
IC ICM C08F220-56
     ICS B01D021-01; B01J013-00; C08F002-10
     37-6 (Plastics Manufacture and Processing)
     anionic aq dispersion manuf acrylic
     sulfonate; acrylamide acrylic polymer dispersion
     polymn flocculant
IT
    Dispersing agents
        (anionic, polymeric; manufacture of
       stable anionic water-soluble polymer
       dispersions by dispersion polymerization)
    Polymerization
        (dispersion; manufacture of stable
        anionic water-soluble polymer
       dispersions by dispersion polymerization)
TT
    Disperse systems
        (manufacture of stable anionic water-soluble
       polymer dispersions by dispersion
       polymerization)
     9003-39-8, Polyvinyl pyrrolidone 76404-20-1,
     2-Acrylamido-2-methylpropanesulfonic acid-methacrylic acid
     copolymer
     RL: NUU (Other use, unclassified); USES (Uses)
        (dispersants; manufacture of stable
       anionic water-soluble polymer
       dispersions by dispersion polymerization)
    468721-70-2P, Acrylamide-2-acrylamido-2-
```

methylpropanesulfonic acid-acrylic acid-sodium 2-acrylamido-2-methylpropanesulfonate-sodium acrylate copolymer

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(manufacture of stable amionic water-soluble polymer dispersions by dispersion

polymerization)

OS.CITING REF COUNT: THERE ARE 2 CAPLUS RECORDS THAT CITE 2 THIS RECORD (2 CITINGS)

L137 ANSWER 5 OF 8 HCAPLUS COPYRIGHT 2009 ACS on STN

1997:402901 HCAPLUS Full-text ACCESSION NUMBER:

DOCUMENT NUMBER: 127:18413

ORIGINAL REFERENCE NO.: 127:3717a,3720a

TITLE: Preparing polymer powders which are

redispersible in aqueous media

Pakusch, Joachim; Dieing, Reinhold; Tropsch, INVENTOR(S):

Juergen

PATENT ASSIGNEE(S): BASF A.-G., Germany

SOURCE: Eur. Pat. Appl., 23 pp. CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1 PATENT INFORMATION:

| PATENT NO. |         |  |     | KIND DATE |  |         |     |     |     |      |     |     |      |     | DATE |
|------------|---------|--|-----|-----------|--|---------|-----|-----|-----|------|-----|-----|------|-----|------|
| EP 7706    | -<br>40 |  |     | A2        |  | 19970   | 502 |     | EP  | 199  | 6-1 | 166 | 79   |     | 1996 |
|            |         |  |     |           |  |         |     |     |     |      |     |     |      |     | 1017 |
| EP 7706    | 10      |  |     | 3.7       |  | 19971   | 020 |     |     | <    |     |     |      |     |      |
| EP 7706    |         |  |     |           |  | 20030   |     |     |     |      |     |     |      |     |      |
| R:         |         |  | CH, |           |  | , ES, 1 |     | FR, | GE  | 3, G | R,  | ΙE, | IT,  | LI, | NL,  |
| DE 1954    |         |  |     | 2.1       |  | 19970   | 130 |     | DE  | 100  | 5_1 | 954 | 0205 |     |      |
| DD 1754    | 0303    |  |     | n.        |  | 100.00  | 150 |     | DL  | 1))  | J-1 | ,,, | 0505 |     | 1995 |
|            |         |  |     |           |  |         |     |     |     |      |     |     |      |     | 1028 |
|            |         |  |     |           |  |         |     |     |     | <    |     |     |      |     |      |
| AT 2383    | 76      |  |     | T         |  | 20030   | 515 |     | AT  | 199  | 6-1 | 166 | 79   |     |      |
|            |         |  |     |           |  |         |     |     |     |      |     |     |      |     | 1996 |
|            |         |  |     |           |  |         |     |     |     |      |     |     |      |     | 1017 |
|            |         |  |     |           |  |         |     |     |     | <    |     |     |      |     |      |
| CA 2188    | 685     |  |     | A1        |  | 19970   | 429 |     | CA  | 199  | 6-2 | 188 | 685  |     |      |
|            |         |  |     |           |  |         |     |     |     |      |     |     |      |     | 1996 |
|            |         |  |     |           |  |         |     |     |     |      |     |     |      |     | 1023 |
| US 5874    | F 0 4   |  |     |           |  |         |     |     |     | <    |     |     |      |     |      |
| US 58/4    | 524     |  |     | A         |  | 19990   | 223 |     | US  | 199  | 6-7 | 319 | 89   |     | 1996 |
|            |         |  |     |           |  |         |     |     |     |      |     |     |      |     | 1023 |
|            |         |  |     |           |  |         |     |     |     | <    |     |     |      |     | 1023 |
| AU 9670    | 406     |  |     | 20        |  | 19970   | 501 |     |     |      |     | 040 | 6    |     |      |
| 110 5010   | 400     |  |     | 43        |  | 100.00  | JO1 |     | 210 | 1,,, |     | 040 | •    |     | 1996 |
|            |         |  |     |           |  |         |     |     |     |      |     |     |      |     | 1025 |
|            |         |  |     |           |  |         |     |     |     | <    |     |     |      |     |      |
| SG 8190    | 3       |  |     | A1        |  | 20010   | 724 |     | SG  | 199  | 6-1 | 096 | 7    |     |      |
|            |         |  |     |           |  |         |     |     |     |      |     |     |      |     | 1996 |
|            |         |  |     |           |  |         |     |     |     |      |     |     |      |     | 1025 |
|            |         |  |     |           |  |         |     |     |     | <    |     |     |      |     |      |
| JP 0916    | 9812    |  |     | A         |  | 19970   | 630 |     | JP  | 199  | 6-2 | 855 | 86   |     |      |
|            |         |  |     |           |  |         |     |     |     |      |     |     |      |     | 1996 |
|            |         |  |     |           |  |         |     |     |     |      |     |     |      |     | 1028 |
|            |         |  |     |           |  |         |     |     |     | <    |     |     |      |     |      |
| CN 1153    | 181     |  |     | A         |  | 19970   | 702 |     | CN  | 199  | 6-1 | 228 | 81   |     |      |

1996 1028 PRIORITY APPLIN. INFO.: DE 1995-19540305 A 1995 1028

ED Entered STN: 30 Jun 1997

AB Polymer powders which disperse in aqueous media so that the dispersed particle have pos. or neg. surface elec. charges are manufactured by spray-drying mixts. dispersions of the polymers such as those of (meth)acrylate esters, styrene, and vinyl compds. and polyelectrolytes which act as drying aids and are composed of polyions that wave elec. charges different than that on the surfaces of the dispersed polymer particles. These powders are useful as hydraulic binder additives, paints, varnishes, adhesives, paper coatings, and synthetic resin plaster. A typical spray-dried composition contained ensionically stabilized dispersion of 11.2:219.2:25.6:252 acrylamide=Bu acrylamides—methacrylamide=styrene copolymer and 15% 120:280 3-methyl-1-vinylimidazolium Me sulfate-vinylbyrrolidone copolymer.

IT 95144-24-8P, 3-Methyl-1-vinylimidazolium
 chloride-N-vinylpyrrolidone copolymer 131984-48-8P,
 Trimethylammoniopropylmethacrylamide chloride-N-vinylpyrrolidone
 copolymer 150999-70-9P, 3-Methyl-1-vinylimidazolium
 methyl sulfate-N-vinylpyrrolidone copolymer 17476-16-16-NP
 RL: IMF (Industrial manufacture); MOA (Modifier or additive use);
 PREP (Preparation); USES (Uses)

(preparing polymer powders containing polyelectrolytes which

are redispersible in aqueous media) RN 95144-24-4 HCAPLUS

CN 1H-Imidazolium, 1-ethenyl-3-methyl-, chloride (1:1), polymer with 1-ethenyl-2-pyrrolidinone (CA INDEX NAME)

CM 1 CRN 13474-25-4 CMF C6 H9 N2 . C1



Ocl.

CM 2

CRN 88-12-0 CMF C6 H9 N O



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CN
   1-Propanaminium, N,N,N-trimethyl-3-[(2-methyl-1-oxo-2-propen-1-
    yl)amino]-, chloride (1:1), polymer with 1-ethenyl-2-pyrrolidinone (CA INDEX NAME)
    CM 1
    CRN 51410-72-1
    CMF C10 H21 N2 O . C1
 Me3+N- (CH2)3-NH-U-U-Me
          ● c1=
    CM 2
    CRN 88-12-0
    CMF C6 H9 N O
   150599-70-5 HCAPLUS
RN
   1H-Imidazolium, 1-etheny1-3-methy1-, methy1 sulfate (1:1), polymer
CN
    with 1-etheny1-2-pyrrolidinone (CA INDEX NAME)
    CM 1
    CRN 88-12-0
    CMF C6 H9 N O
    CM 2
    CRN 26591-72-0
    CMF C6 H9 N2 . C H3 O4 S
         CM
             3
         CRN 45534-45-0
```

CMF C6 H9 N2

```
10/591,654-306094-EIC SEARCH
         CM 4
         CRN 21228-90-0
         CMF C H3 O4 S
Me_O_S03-
   174761-16-1 HCAPLUS
RN
CN 1H-Imidazolium, 1-ethenyl-3-methyl-, methyl sulfate (1:1), polymer
    with 1-ethenylhexahydro-2H-azepin-2-one and
    1-ethenyl-2-pyrrolidinone (CA INDEX NAME)
    CM 1
    CRN 2235-00-9
    CMF C8 H13 N O
    CM 2
    CRN 88-12-0
    CMF C6 H9 N O
    CM 3
    CRN 26591-72-0
```

CMF C6 H9 N2 . C H3 O4 S CM 4 CRN 45534-45-0 CMF C6 H9 N2



CRN 79-41-4 CMF C4 H6 O2

```
CM
              5
          CRN 21228-90-0
          CMF C H3 O4 S
 Me__0_S03-
IT 25036-16-29, Butyl acrylate-methacrylic acid-styrene
     copolymer 25586-24-7P 27358-58-3F 34407-02-8P, Butyl acrylate-hydroxyethyl
     acrylate-methacrylic acid-styrene copolymer
     RL: IMF (Industrial manufacture); POF (Polymer in formulation);
     PREP (Preparation); USES (Uses)
        (preparing polymer powders containing polyelectrolytes which
        are redispersible in aqueous media)
    25036-16-2 HCAPLUS
RN
CN 2-Propenoic acid, 2-methyl-, polymer with butyl 2-propenoate and
     ethenvlbenzene (CA INDEX NAME)
     CM 1
     CRN 141-32-2
     CMF C7 H12 O2
 n-Buo______CH____CH 2
     CM 2
     CRN 100-42-5
     CMF C8 H8
 H2C____CH__Ph
```

```
CH2
Me_U_CO2H
RN
   25586-24-7 HCAPLUS
CN 2-Propenoic acid, polymer with butyl 2-propenoate, ethenylbenzene
    and 2-propenamide (CA INDEX NAME)
    CM 1
    CRN 141-32-2
    CMF C7 H12 O2
    CM 2
    CRN 100-42-5
    CMF C8 H8
 H2C___CH_Ph
    CM 3
    CRN 79-10-7
CMF C3 H4 O2
    CM 4
    CRN 79-06-1
    CMF C3 H5 N O
```

RN 27358-58-3 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, polymer with ethenylbenzene,
2-ethylhexyl 2-propenoate and 2-propenamide (CA INDEX NAME)

```
CM 1
     CRN 103-11-7
CMF C11 H20 O2
 Et_CH_Bu-n
     CM 2
     CRN 100-42-5
      CMF C8 H8
 H2C___CH__Ph
      CM 3
     CRN 79-41-4
      CMF C4 H6 O2
 СН2
Ме_Ц_СО2Н
     CM 4
     CRN 79-06-1
CMF C3 H5 N O
 H2N_U_CH__CH2
RN 34407-02-8 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, polymer with butyl 2-propenoate, ethenylbenzene and 2-hydroxyethyl 2-propenoate (CA INDEX NAME)
      CM 1
      CRN 818-61-1
      CMF C5 H8 O3
 но_сн2_сн2_о_Сп__сн2
```

```
CM 2
    CRN 141-32-2
    CMF C7 H12 O2
 n-Buo_U_CH_CH2
    CM
        3
    CRN 100-42-5
    CMF C8 H8
 H2C___CH_Ph
    CM
        4
    CRN 79-41-4
     CMF C4 H6 O2
 Me_U_CO2H
     ICM C08J003-16
cc
     37-6 (Plastics Manufacture and Processing)
     Section cross-reference(s): 38, 42, 43, 58
    Polyelectrolytes
    RL: IMF (Industrial manufacture); MOA (Modifier or additive use);
     PREP (Preparation); USES (Uses)
        (preparing polymer powders containing polyelectrolytes which
       are redispersible in aqueous media)
    Adhesives
        (preparing polymer powders containing polyelectrolytes which
        are redispersible in aqueous media for adhesives)
     Cement (construction material)
        (preparing polymer powders containing polyelectrolytes which
        are redispersible in aqueous media for hydraulic binder additives)
    Paints
        (preparing polymer powders containing polyelectrolytes which
        are redispersible in aqueous media for paints)
TT
    Coating materials
     Paper
        (preparing polymer powders containing polyelectrolytes which
       are redispersible in aqueous media for paper coatings)
        (preparing polymer powders containing polyelectrolytes which
       are redispersible in aqueous media for synthetic resin plaster)
    Varnishes
```

(preparing polymer powders containing polyelectrolytes which

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10/591,654-306094-EIC SEARCH
        are redispersible in aqueous media for varnishes)
   95144-24-4P, 3-Methyl-1-vinylimidazolium
    chloride-N-vinylpyrrolidone copolymer 131954-48-8P,
     Trimethylammoniopropylmethacrylamide chloride-N-vinylpyrrolidone
     copolymer 150599-70-5P, 3-Methyl-1-vinylimidazolium
     methyl sulfate-N-vinylpyrrolidone copolymer 174761-16-19
    RL: IMF (Industrial manufacture); MOA (Modifier or additive use);
     PREP (Preparation); USES (Uses)
        (preparing polymer powders containing polyelectrolytes which
       are redispersible in aqueous media)
IT
    25036~16~2P, Butyl acrylate-methacrylic acid-styrene
    copolymer 25085-44-3P, Butyl acrylate-methacrylamide-styrene
     copolymer 25586-24-7P 27358-58-3P
     34407-02-8P, Butyl acrylate-hydroxyethyl
     acrylate-methacrylic acid-styrene copolymer 133651-90-8P,
     Acrylamide-butyl acrylate-methacrylamide-styrene copolymer
     RL: IMF (Industrial manufacture): POF (Polymer in formulation):
     PREP (Preparation); USES (Uses)
        (preparing polymer powders containing polyelectrolytes which
        are redispersible in aqueous media)
OS.CITING REF COUNT:
                       4 THERE ARE 4 CAPLUS RECORDS THAT CITE
                              THIS RECORD (4 CITINGS)
L137 ANSWER 6 OF 8 HCAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1996:392113 HCAPLUS Full-text
DOCUMENT NUMBER:
                        125:116178
ORIGINAL REFERENCE NO.: 125:21816h,21817a
TITLE:
                       Anionic electrodepositable coating composition
                        for pigment-dispersed color filter
INVENTOR(S):
                        Niu, Chao-Wen; Shieh, Jim-Chyuan; Hsieh, Pao
                        J.; Lin, Wen R.; Lin, Hsien K.
PATENT ASSIGNEE(S):
                        Industrial Technology Research Institute.
                        Taiwan; Nan Ya Plastics Corp.
SOURCE:
                        U.S., 14 pp.
                       CODEN: USXXAM
DOCUMENT TYPE:
                       Patent
LANGUAGE:
                       English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:
    PATENT NO
                      KIND DATE
                                       APPLICATION NO.
                                                                DATE
                        ----
     _____
    US 5523340
                       A 19960604 US 1995-376999
                                                                 1995
                                                                 0123
                                          US 1995-376999
PRIORITY APPLN. INFO .:
                                                                 1995
                                                                 0123
```

N(CH2)pococr=CH2

Entered STN: 09 Jul 1996

ED

GI

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AB An anionic electrodepositable coating composition for making pigment dispersed color filters comprising: (a) a pigment; (b) a first addition copolymer containing

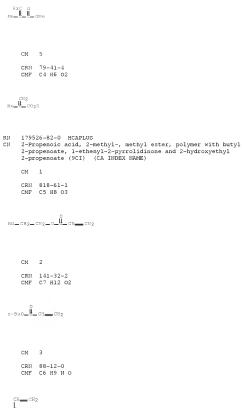
pyrrolidone and hydroxy groups; (c) a second addition copolymer containing carboxyl and hydroxy groups; and (d) a low mol. weight amine. The pyrrolidone-containing monomer can be N-vinv1-2-pyrrolidone (I) or a pyrrolidone-containing acrylate-based monomer II (R = H, Me, or Et, n = 1-3). The first addition copolymer has a weight average mol. weight between 1,000 and 20,000 and is prepared from a monomer composition comprising about 0.5-90 mol percent of a pyrrolidone-containing unsatd. monomer and about 1-50 mol percent of a hydroxy-containing unsatd, monomer. The second addition copolymer has a weight average mol. weight between 5,000 and 60,000 and is prepared from a monomer composition comprising about 5-30 mol percent of a carboxyl-containing unsatd, monomer and 1-50 mol percent of a hydroxy-containing unsatd, monomer. The pigments in the coating composition were measured to have a weight average secondary particle size of less than 0.25 mm, and a polydispersity of less than 1.05. A typical 10% solids aqueous electrodepositable composition was prepd . from a composition containing 14.4:25.6:46.4:20 acrylic acid-Bu acrylate (III) -2-hydroxyethyl acrylate (IV) -Me methacrylate (V) copolymer 27, 25.6:23.2:10:55.5 III-IV-V-I copolymer 3, Cymel 303 5, MEK 10, Cromophtal Red A3B 5, and Et3N 0.28 q. 26062-01-19, Acrylic acid-butyl acrylate-2-hydroxyethyl acrylate-methyl methacrylate copolymer 69896-39-59 179526-82-0P 179526-86-49 RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent) (crosslinkable binder precursor; amionic electrodepositable compns. containing pyrrolidone polymers for manufacture of pigment-dispersed color filters) 26062-01-1 HCAPLUS 2-Propenoic acid, 2-methyl-, methyl ester, polymer with butyl 2-propenoate, 2-hydroxyethyl 2-propenoate and 2-propenoic acid CM 1 CRN 818-61-1 CMF C5 H8 O3 CM 2 CRN 141-32-2 CMF C7 H12 O2 n-B110\_U\_CH\_\_CH2 CM 3 CRN 80-62-6 CMF C5 H8 Q2



RМ

CN

```
CM 4
    CRN 79-10-7
    CMF C3 H4 O2
RN 69896-39-5 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, polymer with butyl 2-propenoate,
    2-hydroxyethyl 2-methyl-2-propenoate, methyl 2-methyl-2-propenoate
    and methyl 2-propenoate (9CI) (CA INDEX NAME)
    CM 1
    CRN 868-77-9
    CMF C6 H10 O3
 H2C 0
Me_U_U_0_CH2_CH2_OH
    CM 2
    CRN 141-32-2
    CMF C7 H12 O2
 n-Buo_<u>U</u>_CH__CH2
    CM 3
    CRN 96-33-3
    CMF C4 H6 O2
 MeO_Ŭ_CH__CH2
    CM 4
    CRN 80-62-6
    CMF C5 H8 O2
```





CM 4

CRN 80-62-6 CMF C5 H8 O2

H2C O Me\_U\_U\_OMe

RN 179526-86-4 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with butyl
2-propenoate, 1-ethenyl-2-pyrrolidinone, 2-hydroxyethyl
2-propenoate and 2-propenoic acid (9CI) (CA INDEX NAME)

CM 1

CRN 818-61-1

CMF C5 H8 O3

но\_сн2\_сн2\_о\_**Ŭ**\_сн\_\_сн2

CM 2

CRN 141-32-2 CMF C7 H12 O2

n-Buo\_\_\_\_CH\_\_\_CH2

CM 3

CRN 88-12-0 CMF C6 H9 N O

H\_CH2

CM 4

CRN 80-62-6

CMF C5 H8 O2

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10/591,654-306094-EIC SEARCH
 H2C O
Me_U_U_OMe
    CM 5
    CRN 79-10-7
    CMF C3 H4 O2
 но_ _ сн_ сн2
IT 179526-84-2P 179526-87-5P
    179526-88-6P 179526-89-7P
    RL: DEV (Device component use); IMF (Industrial manufacture); PRP
    (Properties); PREP (Preparation); USES (Uses)
       (cured film; anionic electrodepositable compns.
       containing pyrrolidone polymers for manufacture of
       pigment-dispersed color filters)
    179526-84-2 HCAPLUS
RN
CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with butyl
    2-propenoate, 1-ethenyl-2-pyrrolidinone, formaldehyde,
    2-hydroxyethyl 2-propenoate, 2-propenoic acid and
    1,3,5-triazine-2,4,6-triamine (9CI) (CA INDEX NAME)
    CM 1
    CRN 818-61-1
    CMF C5 H8 O3
    CM 2
    CRN 141-32-2
    CMF C7 H12 O2
 п-вио_й_сн__сн2
```

CM 3

CRN 108-78-1 CMF C3 H6 N6

CM 4

CRN 88-12-0 CMF C6 H9 N O

CM 5

CRN 80-62-6 CMF C5 H8 O2

CM 6

CRN 79-10-7 CMF C3 H4 O2

CM 7

CRN 50-00-0 CMF C H2 O

H2C===0

RN 179526-87-5 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with butyl 2-propenoate, 1-ethenyl-2-pyrrolidinone, formaldehyde, 2-hydroxyethyl 2-methyl-2-propenoate, 2-hydroxyethyl 2-propenoate, methyl

2-methyl-2-propenoate, methyl 2-propenoate and 1,3,5-triazine-2,4,6-triamine (9CI) (CA INDEX NAME)

CM 1

CRN 868-77-9

CMF C6 H10 O3

CM 2

CRN 818-61-1

CMF C5 H8 O3

CM 3

CRN 141-32-2 CMF C7 H12 O2

п-вио\_\_\_\_Сн\_\_\_сн\_\_

CM 4

CRN 108-78-1 CMF C3 H6 N6

CM 5

CRN 96-33-3

CMF C4 H6 O2

CM 6

CRN 88-12-0 CMF C6 H9 N O

CH\_CH2

CM 7

CRN 80-62-6 CMF C5 H8 O2

H2C 0

CM 8

CRN 79-41-4 CMF C4 H6 O2

CH2 Me\_U\_CO2H

CM 9

CRN 50-00-0 CMF C H2 O

H2C\_\_\_\_O

RN 179526-88-6 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with butyl 2-propenoate, 1-ethenyl-2-pyrroldinone, formaldehyde, 2-hydroxyethyl 2-methyl-2-propenoate, methyl 2-propenoate and 1,3,5-triazine-2,4,6-triamine (9CI) (CA INDEX NAME)



CM 6

CRN 80-62-6 CMF C5 H8 O2

H2C 0

CM 7

CRN 79-41-4 CMF C4 H6 O2

ме\_**Ц**\_со2Н

CM 8

CRN 50-00-0 CMF C H2 O

н20\_\_\_0

RN 179526-89-7 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with butyl 2-propenoate, formaldehyde, 2-hydroxyethyl 2-methyl-2-propenoate, 2-hydroxyethyl 2-propenoate, methyl 2-methyl-2-propenoate, methyl 2-propenoate, 2-(2-oxo-1-pyrolidinyl)ethyl 2-propenoate and 1,3,5-triazine-2,4-6-triamine (9CI) (CA INDEX NAME)

CM 1

CRN 3541-31-9 CMF C9 H13 N O3



- CM 2 CRN 868-77-9 CMF C6 H10 O3
- H2C 0 Me\_U\_U\_O\_CH2\_CH2\_OH
  - CM 3
  - CRN 818-61-1 CMF C5 H8 O3
- - CM 4
  - CRN 141-32-2 CMF C7 H12 O2
- n-Buo\_\_\_\_CH\_\_\_CH2
  - CM 5
  - CRN 108-78-1
  - CMF C3 H6 N6



- CM 6
- CRN 96-33-3

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MAO_U_CH_CH2
    CM 7
    CRN 80-62-6
    CMF C5 H8 O2
 H2C O
Me_U_U_OMe
    CM 8
    CRN 79-41-4
    CMF C4 H6 O2
Me_U_CO2H
    CM 9
    CRN 50-00-0
    CMF C H2 O
H2C==0
   ICM C08K005-34
    ICS C08K003-00; C08L039-06
INCL 524088000
    37-3 (Plastics Manufacture and Processing)
    Section cross-reference(s): 73
    Optical filters
    Optical materials
    Pigments
       (anionic electrodepositable compns. containing
       pyrrolidone polymers for manufacture of pigment-
       dispersed color filters)
    121-44-8, uses
    RL: MOA (Modifier or additive use); TEM (Technical or engineered
    material use); USES (Uses)
        (binder solubilizer; amionic electrodepositable
       compns. containing pyrrolidone polymers for manuf
        . of pigment-dispersed color filters)
    26062-01-19, Acrylic acid-butyl acrylate-2-hydroxyethyl
    acrylate-methyl methacrylate copolymer 69896-39-5P
                  179526-83-1P 179526-85-3P
    179526-82-0P
    179526-86-4P
```

10/591.654-306094-EIC SEARCH RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation): RACT (Reactant or reagent) (crosslinkable binder precursor; anionic electrodepositable compns. containing pyrrolidone polymers for manufacture of pigment-dispersed color filters) TT 179526-84-20 179526-87-59 179526-88-6P 179526-89-7P RL: DEV (Device component use); IMF (Industrial manufacture); PRP (Properties); PREP (Preparation); USES (Uses) (cured film; maionic electrodepositable compns. containing pyrrolidone polymers for manufacture of pigment-dispersed color filters) 147-14-8, Heliogen Blue K 7090 4051-63-2, Cromophtal Red A 3B 179671-47-7, Heliogen Green K 8683 RL: DEV (Device component use); USES (Uses) (pigment; snionic electrodepositable compns, containing pyrrolidone polymers for manufacture of pigmentdispersed color filters) REFERENCE COUNT: THERE ARE 5 CITED REFERENCES AVAILABLE 5 FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT L137 ANSWER 7 OF 8 HCAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 1990:159842 HCAPLUS Full-text DOCUMENT NUMBER: 112:159842 ORIGINAL REFERENCE NO.: 112:27023a,27026a TITLE: Preparation of stable aqueous suspensions of water-soluble polymers in presence of ammonium salts INVENTOR(S): Burdick, Charles L. Aqualon Co., USA PATENT ASSIGNEE(S): SOURCE: U.S., 9 pp. CODEN: USXXAM DOCUMENT TYPE: Datant LANGUAGE . English FAMILY ACC. NUM. COUNT: 1 PATENT INFORMATION:

| PAT | ENT NO.  |       | KIND | DATE     | APPLICATION NO. | DATE         |
|-----|----------|-------|------|----------|-----------------|--------------|
| US  | 4883536  |       | A    | 19891128 | US 1988-229379  |              |
|     |          |       |      |          |                 | 1988<br>0805 |
|     |          |       |      |          | <               |              |
| CA  | 1340137  |       | C    | 19981117 | CA 1989-607286  |              |
|     |          |       |      |          |                 | 1989         |
|     |          |       |      |          |                 | 0802         |
|     |          |       |      |          | <               |              |
| EP  | 357962   |       | A2   | 19900314 | EP 1989-114358  |              |
|     |          |       |      |          |                 | 1989         |
|     |          |       |      |          |                 | 0803         |
|     |          |       |      |          | <               |              |
|     | 357962   |       |      | 19910123 |                 |              |
| EP  | 357962   |       |      | 19941012 |                 |              |
|     |          | BE, C |      |          | IT, LI, NL, SE  |              |
| ES  | 2063792  |       | T3   | 19950116 | ES 1989-114358  |              |
|     |          |       |      |          |                 | 1989         |
|     |          |       |      |          |                 | 0803         |
|     |          |       |      |          | <               |              |
| AU  | 8939329  |       | A    | 19900208 | AU 1989-39329   |              |
|     |          |       |      |          |                 | 1989         |
|     |          |       |      |          |                 | 0804         |
|     |          |       |      |          | <               |              |
|     | 614169   |       |      | 19910822 |                 |              |
| JP  | 02099574 |       | A    | 19900411 | JP 1989-203712  |              |

10/591,654-306094-EIC SEARCH 1989 0805 JP 3110428 B2 20001120 US 5028263 A 19910702 US 1989-396265 1989 0821 <---PRIORITY APPLA. INFO.: US 1988-229379 1988 0805 <--ED Entered STN: 28 Apr 1990 The title suspensions, permitting ease of handling and dosage control, contain ≥20% AB anionic or nonionic water-soluble polymer and are prepared by dispersing the polymer in an aqueous solution of an ammonium salt having a multivalent anion, the ammonium salt /water ratio being ≥0.15. A solution of 22.5 parts (NH4)2HPO4 in 52.5 parts H2O was mixed with 25 parts Natrosol 250GR (hydroxyethyl cellulose) to give a suspension which was stable and pourable for >3 days. IT 9003-39-8, Poly(vinylpyrrolidone) RL: USES (Uses) (aqueous suspensions of, preparation of stable, ammonium salts for) 9003-39-8 HCAPLUS RN CN 2-Pyrrolidinone, 1-ethenyl-, homopolymer (CA INDEX NAME) CM CRN 88-12-0 CMF C6 H9 N O RL: USES (Uses) (suspensions of, in aq. ammonium selt solns., stable ICM C08L001-08 TCS C08K003-00 TNCL 106194000 37-6 (Plastics Manufacture and Processing) Section cross-reference(s): 43 suspension aq polymer ammonium sælt; hydroxyethyl cellulose aq suspension stability; dispersion aq polymer ammonium salt тт Dispersing agents (ammonium salts, for polymers in aqueous suspensions) Suspensions (of water-soluble polymers in aqueous ammonium salt solns., stable) TT Polymers, uses and miscellaneous RL: USES (Uses) (suspensions of water-soluble, in aqueous ammonium salt solns., stable) Polyamides, uses and miscellaneous RL: USES (Uses) (suspensions of, in aqueous ammonium salt

solns., stable) Polyphosphoric acids

```
10/591.654-306094-EIC SEARCH
    RL: PREP (Preparation)
        (ammonium salts, dispersions of water-soluble
       polymers in aqueous, preparation of stable)
   9000-30-0, Guar 9002-89-5, Poly(vinyl alcohol)
Polyacrylamide 9003-39-8, Poly(vinylpyrrolidone)
     9004-30-2, Carboxymethyl hydroxyethyl cellulose 9004-32-4,
    Carboxymethyl cellulose 9004-62-0, Hydroxyethyl cellulose
    9004-64-2, Hydroxypropyl cellulose 9004-65-3,
    Methylhydroxypropyl cellulose 9032-42-2, Methylhydroxyethyl
    cellulose 11138-66-2, Xanthan gum 25322-68-3 39421-75-5.
     Hydroxypropyl guar 51331-09-0, Hydroxyethyl hydroxypropyl
     cellulose 120146-45-4
    RL: USES (Uses)
        (aqueous suspensions of, preparation of stable,
       ammonium salts for)
ΙT
     7783-20-2. Diammonium sulfate, uses and miscellaneous 7783-28-0.
     Diammonium phosphate
     RL: USES (Uses)
       (dispersions of water-soluble polymers in aqueous,
       preparation of stable)
тт
    7631-86-9, Silica, uses and miscellaneous
     RL: USES (Uses)
        (stabilizers, for aqueous polymer suspensions)
     79-06-1D, 2-Propenamide, polymers
     RL: USES (Uses)
        (suspensions of, in aqueous ammonium salt
       solns., preparation of stable)
     9003-39-8, Poly(vinylpyrrolidone) 9005-25-8, Starch,
    uses and miscellaneous
    RL: USES (Uses)
        (suspensions of, in aqueous ammonium salt
       solns., stable)
OS.CITING REF COUNT: 10
                            THERE ARE 10 CAPLUS RECORDS THAT CITE
                              THIS RECORD (12 CITINGS)
REFERENCE COUNT: 10 THERE ARE 10 CITED REFERENCES AVAILABLE
                              FOR THIS RECORD. ALL CITATIONS AVAILABLE
                              IN THE RE FORMAT
L137 ANSWER 8 OF 8 HCAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1983:523532 HCAPLUS Full-text DOCUMENT NUMBER: 99:123532
ORIGINAL REFERENCE NO.: 99:19037a,19040a
                       Spherical anion exchanger beads
PATENT ASSIGNEE(S): Nippon Kayaku Co., Ltd., Japan
SOURCE:
                       Jpn. Kokai Tokkyo Koho, 6 pp.
                       CODEN: JKXXAF
DOCUMENT TYPE:
                       Patent
                        Japanese
LANGUAGE:
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:
    PATENT NO.
                      KIND DATE APPLICATION NO.
                                                                DATE
    -----
                       ----
    JP 58037017
                       A 19830304 JP 1981-134033
                                                                 1981
                                                                0828
                                             <--
     JP 02041528
                       B 19900918
PRIORITY APPLN. INFO.:
                                          JP 1981-134033
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1981 0828

ED Entered STN: 12 May 1984

AB Spherical anion exchanger beads are prepared by polymerizing aqueous solns. of dialkyldiallylammonium chloride and compds, having ≥2 diallylammonium groups or ≥2

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10/591,654-306094-EIC SEARCH
    vinylbenzylammonium groups dispersed in hydrophobic solvents in the presence of
    polymers containing 0.1-10 % hydrophilic polymer units and having solubility in the
    hydrophobic solvents. Thus, 180 mL PhMe, 54 g diallyldimethylammonium chloride, 24 g
    N,N'-dimethyl-N,N,N',N'-tetraallyl-2-butene-1,4-diammonium dichloride, 0.39 g 2,2'-
    azobis(2-amidinopropane)-HCl, 42 q H2O, and 0.56 q of a 43% solids emulsion of
    copolymer [ 25085-19-2] (derived from acrylic acid 3, 2-ethylhexyl acrylate 60, and
    styrene 40 parts) were stirred 2 h each at 50, 60, 70, and 80° to give spherical
   copolymer [87079-51-4] beads having average diameter 0.35 mm and anion-exchange capacity 5.1 mequiv/q.
   25085-19-2
               71770-97-3
                            87091-50-7
   RL: USES (Uses)
       (dispersing agents, in manufacture of spherical anion
       exchanger beads by suspension polymerization in hydrocarbon solvents)
   25085-19-2 HCAPLUS
   2-Propenoic acid, polymer with ethenylbenzene and 2-ethylhexyl
   2-propenoate (CA INDEX NAME)
   CM 1
   CRN 103-11-7
   CMF C11 H20 O2
   сн2_ о_ Ū_ сн__ сн2
Et_CH_Bu-n
   CM 2
   CRN 100-42-5
   CMF C8 H8
H2C___CH_Ph
   CM 3
   CRN 79-10-7
   CMF C3 H4 O2
но_ (_сн__сн2
   71770-97-3 HCAPLUS
   2-Propenoic acid, 2-methyl-, 2-methylpropyl ester, polymer with
   2-ethylhexyl 2-propenoate and 2-propenoic acid (9CI) (CA INDEX
   NAME)
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TT

RN

CN

CM 1 CRN 103-11-7 CMF C11 H20 O2

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Page 47
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CM 2

CRN 97-86-9 CMF C8 H14 O2

i-BuO\_U\_U\_Me

CM 3

CRN 79-10-7 CMF C3 H4 O2

но\_ Е\_сн\_\_сн2

- RN 87091-50-7 HCAPLUS
  CN 2-Propencic acid, 2-methyl-, 2-methylpropyl ester, polymer with
  1-ethenyl-2-pyrrolidinone and 2-ethylhexyl 2-propencate (SCI) (CA INDEX NAME)

CM 1

CRN 103-11-7 CMF C11 H20 O2

Et\_CH\_Bu-n

CM 2

CRN 97-86-9 CMF C8 H14 O2

1-BuO\_U\_U\_Me

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CM 3
CRN 88-12-0
CMF C6 H9 N O
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IC C08F226-04
ICA B01J041-12
    37-3 (Plastics Manufacture and Processing)
тт
    Dispersing agents
        (acrylic polymers, in manufacture of spherical
       anion exchanger beads)
     Anion exchangers
       (manufacture of spherical beads of, dispersing agents in)
IT
    87079-48-9 87079-50-3 87079-51-4 87079-70-7 87079-72-9
     RL: USES (Uses)
        (anion exchangers, manufacture of spherical, dispersing
       agents for)
    25085-19-2 27401-10-1 71770-97-3
     87079-52-5 87091-50-7
    RL: USES (Uses)
        (dispersing agents, in manufacture of spherical anion
       exchanger beads by suspension polymerization in hydrocarbon solvents)
=> => d his 1138
```

(FILE 'HCAPLUS' ENTERED AT 11:16:13 ON 28 AUG 2009) SAV TEMP L135 PEZ654HCP/A L138 22 S L135 NOT L137

SAV TEMP L137 PEZ654HCPA/A

=> d 1138 1-22 ibib ed abs hitstr hitind

L138 ANSWER 1 OF 22 HCAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 2005:1075845 HCAPLUS Full-text 143:347632

DOCUMENT NUMBER: TITLE:

Anionic water-in-water polymer dispersion, method for the production

thereof and its use

INVENTOR(S): Bellmann, Susanne; Steiner, Norbert; Busch, Michael; Steuck, Dev; Schulte, Johann; Woebel,

Wolfgang

PATENT ASSIGNEE(S): Stockhausen G.m.b.H., Germany

PCT Int. Appl., 35 pp. SOURCE:

CODEN: PIXXD2 DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1 PATENT INFORMATION:

> KIND DATE APPLICATION NO. PATENT NO. DATE WO 2005092954 A1 20051006 WO 2005-EP2358 2005

> > 0307

```
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ,
            CA, CH, CN, CO, CR, CU, CZ, DK, DM, DZ, EC, EE, EG, ES,
            FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE,
            KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG,
            MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT,
            RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR,
            TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
        RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM,
            ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH,
            CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT,
            LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF,
            CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
    DE 102004013750
                       A1
                              20051103 DE 2004-102004013750
                                                                  2004
                                                                  0318
    EP 1727853
                       A1
                               20061206
                                           EP 2005-715776
                                                                  2005
                                                                  0307
         R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR,
            HU, IE, IS, IT, LI, LT, LU, MC, NL, PL, PT, RO, SE, SI,
            SK, TR
    CN 1954021
                               20070425 CN 2005-80015596
                                                                  2005
                                                                  0307
    BR 2005008836
                               20070828
                         A
                                          BR 2005-8836
                                                                  2005
                                                                  0307
    JP 2007529581
                         T
                               20071025
                                           JP 2007-503235
                                                                  2005
                                                                  0307
                                              ·--
    HS 20070203290 A1
                               20070830
                                        US 2007-593293
                                                                  2007
                                                                  0515
PRIORITY APPLN. INFO.:
                                           DE 2004-102004013750A
                                                                  2004
                                                                  0318
                                              <--
                                           WO 2005-EP2358
                                                                  2005
                                                                  0307
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Entered STN: 07 Oct 2005 ED

ΔR

The invention relates to a method for producing amionic water-in-water polymer dispersions containing at least one finely dispersed, water-soluble and/or waterswellable polymer A (such as acrylamide-ammonium acrylate copolymer) and a continuous aqueous phase. This phase has a partial quantity of at least one polymeric dispersing agent B [such as poly(potassium acrylate)] in which monomers dispersed in this aqueous phase are subjected to a radical polymerization, and after the polymerization is completed, the reaction mixture is subsequently diluted with the remaining amount of dispersing agent B. The invention also relates to the polymer dispersions obtained according to the method and to their use, particularly in the paper industry.

```
IT 25085-02-3P, Acrylamide-sodium acrylate
    copolymer 26100-47-0P, Acrylamide-ammonium
```

acrylate copolymer 31212-13-2F, Acrylamide-potassium acrylate copolymer

RL: IMF (Industrial manufacture); PREP (Preparation) (anionic water-in-water polymer

dispersions using polymeric dispersants)

RN 25085-02-3 HCAPLUS

CN 2-Propenoic acid, sodium salt (1:1), polymer with 2-propenamide

```
(CA INDEX NAME)
     CM 1
    CRN 7446-81-3
CMF C3 H4 O2 . Na
 HO____CH___CH2
     ● Na
    CM 2
    CRN 79-06-1
CMF C3 H5 N O
 H2N___CH___CH2
RN 26100-47-0 HCAPLUS
CN 2-Propenoic acid, ammonium salt (1:1), polymer with 2-propenamide
     (CA INDEX NAME)
     CM 1
    CRN 10604-69-0
     CMF C3 H4 O2 . H3 N
 HO_U_CH__CH2
     NH3
    CM 2
    CRN 79-06-1
     CMF C3 H5 N O
 Hon_U_CH_CHo
RN 31212-13-2 HCAPLUS
CN 2-Propenoic acid, potassium salt (1:1), polymer with 2-propenamide
```

Page 51

(CA INDEX NAME)

```
CM 1
    CRN 10192-85-5
    CMF C3 H4 O2 . K
     ■ K
    CM 2
    CRN 79-06-1
    CMF C3 H5 N O
 H2N_U_CH__CH2
   9003-20-7, Polyvinyl acetate 9003-39-8,
     Polyvinylpyrrolidone 9005-11-2,
    Poly-N-vinylsuccinimide 26159-89-7, Polypotassium
    acrylate 866041-93-2, Poly-N-vinyl-2-methylsuccinimide
    RL: NUU (Other use, unclassified); USES (Uses)
        (dispersant; anionic water-in-water
       polymer dispersions using polymeric
       dispersants)
RN
    9003-20-7 HCAPLUS
CN
    Acetic acid ethenyl ester, homopolymer (CA INDEX NAME)
    CM
    CRN 108-05-4
    CMF C4 H6 O2
 Aco_CH__CH2
    9003-39-8 HCAPLUS
CN
    2-Pyrrolidinone, 1-ethenyl-, homopolymer (CA INDEX NAME)
    CM 1
    CRN 88-12-0
    CMF C6 H9 N O
```

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9005-11-2 HCAPLUS
CN
    2,5-Pyrrolidinedione, 1-ethenyl-, homopolymer (CA INDEX NAME)
    CM 1
    CRN 2372-96-5
    CMF C6 H7 N O2
    26159-89-7 HCAPLUS
RN
    2-Propenoic acid, potassium salt (1:1), homopolymer (CA INDEX
CN
    NAME)
    CM 1
    CRN 10192-85-5
    CMF C3 H4 O2 . K
     ■ K
RN
   866041-93-2 HCAPLUS
CN 2,5-Pyrrolidinedione, 1-ethenyl-3-methyl-, homopolymer (9CI) (CA
    INDEX NAME)
    CM 1
    CRN 36667-14-8
    CMF C7 H9 N O2
   ICM C08J003-03
     ICS C08F002-10; C08F002-20; C08F020-36; C08F020-54; C08F020-56;
         D21H021-10
    35-4 (Chemistry of Synthetic High Polymers)
    Section cross-reference(s): 43
    water in water anionic polymer
```

dispersion paper industry; acrylamide ammonium acrylate

10/591,654-306094-EIC SEARCH copolymer water in water dispersion; polypotassium acrylate dispersant water in water polymer dispersion; polymeric dispersant anionic polymer dispersion Flocculants (anionic water-in-water polymer dispersions using polymeric dispersants for flocculants) Paper (anionic water-in-water polymer dispersions using polymeric dispersants for retention agents in paper manufacture) Polvamines RL: NUU (Other use, unclassified); USES (Uses) (dispersant; anionic water-in-water polymer dispersions using polymeric dispersants) Dispersing agents (polymeric; anionic water-in-water polymer dispersions using polymeric dispersents) 25085-02-3P, Acrylamide-sodium acrylate copolymer 26109-47-0P, Acrylamide-ammonium acrylate copolymer 31212-13-2P. Acrylamide-potassium acrylate copolymer RL: IMF (Industrial manufacture); PREP (Preparation) (anionic water-in-water polymer dispersions using polymeric dispersants) 9002-98-6 9003-20-7, Polyvinyl acetate 9003-39-8, Polyvinylpyrrolidone 9003-47-8, Polyvinylpyridine 9004-34-6D, Cellulose, derivs. 9004-54-0. Dextran, uses 9005-11-2, Poly-N-vinylsuccinimide 9005-25-8, Starch, uses 9005-25-8D, Starch, derivs. 25232-42-2, Polyvinylimidazole 26159-89-7, Polypotassium acrylate 27082-99-1, Poly(N-vinyl-1,3-oxazolidin-2-one) 866041-93-2, 866041-94-3, Polv-N-vinvl-2-methylsuccinimide Polv(1-vinv1-2-methylimidazoline) RL: NUU (Other use, unclassified); USES (Uses) (dispersant; anionic water-in-water polymer dispersions using polymeric dispersants) REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT L138 ANSWER 2 OF 22 HCAPLUS COPYRIGHT 2009 ACS on STN 2005:1071594 HCAPLUS Full-text ACCESSION NUMBER: 143:327677 DOCUMENT NUMBER: TITLE: Method for preparing disperse dve microcapsules INVENTOR(S): Chen, Shuilin; Li, Zhuo PATENT ASSIGNEE(S): Donghua University, Peop. Rep. China SOURCE: Faming Zhuanli Shenging Gongkai Shuomingshu, 8 CODEN: CNXXEV DOCUMENT TYPE: Patent LANGUAGE: Chinese FAMILY ACC. NUM. COUNT: 1 PATENT INFORMATION: DATE

TT

| PATENT NO. | KIND | DATE     | APPLICATION NO. | DATE    |
|------------|------|----------|-----------------|---------|
|            |      |          |                 |         |
|            |      |          |                 |         |
| CN 1443807 | A    | 20030924 | CN 2003-116242  |         |
|            |      |          |                 | 2003    |
|            |      |          |                 | 0408    |
|            |      |          |                 | 0 1 0 0 |

С 20050817

PRIORITY APPLN. INFO.: CN 2003-116242

2003

0408

OTHER SOURCE(S): MARPAT 143:327677

ED Entered STN: 07 Oct 2005

AB Disperse dyes are microencapsulated using di- or polyisocyanates as wall materials by interfacial polymerization Thus, Disperse Dark Blue S 3BG was encapsulated with a reaction product of MDI-Polyether 2040 copolymer with BuNH2.

9003-39-8, PVD

CN 1215126

RL: MOA (Modifier or additive use); USES (Uses) (disperse dye microencapsulated with polyurethane polyureas)

RN 9003-39-8 HCAPLUS

CN 2-Pyrrolidinone, 1-ethenyl-, homopolymer (CA INDEX NAME)

CM

CRN 88-12-0 CME C6 H9 N O



ICM C09B067-38 IC

ICS B01J013-16 CC

40-6 (Textiles and Fibers) Section cross-reference(s): 41

disperse dye microencapsulation polyether polyurethane ST

polvurea

Emulsifying agents Surfactants

> (anionic; disperse dye microencapsulated with polyurethane polyureas)

Surfactants

(cationic; disperse dve microencapsulated with

polyurethane polyureas)

Disperse dyes

Emulsifying agents Microcapsules

(disperse dve microencapsulated with polyurethane

polvureas)

TT Gelatins, uses

Quaternary ammonium compounds, uses

RL: MOA (Modifier or additive use): USES (Uses) (disperse dve microencapsulated with polyurethane

polvureas)

Amines, reactions

RL: RCT (Reactant); RACT (Reactant or reagent)

(disperse dve microencapsulated with polyurethane

polyureas) Polymerization

(interfacial; disperse dye microencapsulated with

polyurethane polyureas)

TT Emulsifying agents

Surfactants

(nonionic; disperse dye microencapsulated with polyurethane polyureas)

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Polyurethanes, uses
     RL: IMF (Industrial manufacture); TEM (Technical or engineered
     material use); PREP (Preparation); USES (Uses)
        (polyurea-; disperse dye microencapsulated with
       polyurethane polyureas)
тт
    Polyureas
    RL: IMF (Industrial manufacture); TEM (Technical or engineered
     material use); PREP (Preparation); USES (Uses)
        (polyurethane-; disperse dye microencapsulated with
       polyurethane polyureas)
ΙT
    Colloids
       (protective; disperse dye microencapsulated with
       polyurethane polyureas)
    Sulfonic acids, uses
     RL: MOA (Modifier or additive use); USES (Uses)
        (salta, ligno-; disperse dye
       microencapsulated with polyurethane polyureas)
     77-58-7, Dibutyltin dilaurate
     RL: CAT (Catalyst use); USES (Uses)
        (disperse dye microencapsulated with polyurethane
       polvureas)
    865429-35-2DP, reaction products with butylamine
    RL: IMF (Industrial manufacture); TEM (Technical or engineered
     material use); PREP (Preparation); USES (Uses)
        (disperse dye microencapsulated with polyurethane
       polyureas)
    109-73-9D, Butylamine, reaction products with
     polyurethanes 151-21-3, Sodium lauryl sulfate, uses 9002-89-5,
     Polyvinyl alcohol 9003-05-8, Polyacrylamide 9003-39-8
     , Pvp 9004-67-5, Methyl cellulose
     RL: MOA (Modifier or additive use); USES (Uses)
        (disperse dve microencapsulated with polyurethane
       polvureas)
     31810-89-6, Disperse Blue 2BLN 234443-09-5,
     Disperse Blue S 3BG 865429-34-1, Disperse
     Yellow E 3RL
     RL: TEM (Technical or engineered material use); USES (Uses)
        (disperse dye microencapsulated with polyurethane
       polyureas)
OS.CITING REF COUNT: 1
                             THERE ARE 1 CAPLUS RECORDS THAT CITE
                              THIS RECORD (1 CITINGS)
L138 ANSWER 3 OF 22 HCAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2005:888912 HCAPLUS Full-text
DOCUMENT NUMBER:
                        143:235439
TITLE:
                       Dispersions prepared by
                        use of self-stabilizing agents
INVENTOR(S):
                        Kipp, James E.; Doty, Mark; Rebbeck, Christine
PATENT ASSIGNEE(S):
                       Baxter International Inc., USA
SOURCE:
                       PCT Int. Appl., 24 pp.
                       CODEN: PIXXD2
DOCUMENT TYPE:
                       Patent
LANGUAGE:
                        English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:
    PATENT NO. KIND DATE APPLICATION NO.
                                                               DATE
     WO 2005077337 A2 20050825 WO 2005-US2471
                                                                 2005
                                                                 0126
    WO 2005077337
                    A3 20060323
        W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ,
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CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG,

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ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP,
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    EP 1711163
                                20061018
                                            EP 2005-712082
                        A2
                                                                   2005
                                                                   0126
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             EE, HU, PL, SK, BA, HR, IS, YU
     JP 2007520555
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PRIORITY APPLN. INFO.:
                                            US 2004-542372P
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                                            WO 2005-US2471
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ED Entered STN: 25 Aug 2005

AB The present invention relates to a dispersion of an active agent, which includes a multiphase system of an organic phase and an aqueous phase. The active agent, preferably poorly water soluble, e.g., a therapeutic agents such as efaproxiral, alprostadil, amiodarone and betulinic acid, possesses surface active properties and itself serves as a dispersant or a stabilizer for the dispersion. The dispersion is suitable for pharmaceutical, veterinary, cosmetic, and agricultural applications, and is suitable for in vivo delivery, particularly by parenteral routes. For example, prostaglandins as potential surface-active, poorly water-soluble active agents (e.g., prostaglandin El, also known as alprostadil) are carboxylic acids that may be deprotonated to form an amphipathic salt that is potentially capable of stabilizing an oil-in-water or solid-water interface.

IT 9003-39-8, Polyvinylpyrrolidone RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (multiphase dispersion systems of poorly water-soluble

agents with surface-active properties acting as dispersants or stabilizers)

9003-39-8 HCAPLUS

CN 2-Pyrrolidinone, 1-ethenyl-, homopolymer (CA INDEX NAME)

CM :

CRN 88-12-0 CMF C6 H9 N O

CH\_CH

RN

- ICM A61K009-107 63-6 (Pharmaceuticals) Section cross-reference(s): 5, 62 water poorly sol active agent surfactant dispersant stabilizer dispersion TT Alcohols, biological studies RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (C16-18; multiphase dispersion systems of poorly water-soluble agents with surface-active properties acting as dispersants or stabilizers) Amphiphiles (active agents; multiphase dispersion systems of poorly water-soluble agents with surface-active properties acting as self-stabilizers) Mycobacterium (agents for inhibition of: multiphase dispersion systems of poorly water-soluble agents with surface-active properties acting as dispersants or stabilizers) Blood, disease (agents for treatment of; multiphase dispersion systems of poorly water-soluble agents with surface-active properties acting as dispersants or stabilizers) Sulfonic acids, biological studies RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (alkanesulfonic, esters; multiphase dispersion systems of poorly water-soluble agents with surface-active properties acting as self-stabilizers) Pyridinium compounds RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (alkyl: multiphase dispersion systems of poorly water-soluble agents with surface-active properties acting as dispersants or stabilizers) Quaternary ammonium compounds, biological studies RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (alkylbenzyldimethyl, chlorides; multiphase dispersion systems of poorly water-soluble agents with surface-active properties acting as dispersants or stabilizers) Hormones, animal, biological studies RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (anabolic steroids; multiphase dispersion systems of poorly water-soluble agents with surface-active properties acting as dispersants or stabilizers) Surfactants TT (anionic; multiphase dispersion systems of poorly water-soluble agents with surface-active properties acting as self-stabilizers) Skin preparations (pharmaceutical) (astringents; multiphase dispersion systems of poorly water-soluble agents with surface-active properties acting as dispersants or stabilizers) Drug delivery systems (buccal; multiphase dispersion systems of poorly water-soluble agents with surface-active properties acting as dispersants or stabilizers) TT Surfactants (cationic; multiphase dispersion systems of poorly water-soluble agents with surface-active properties acting as self-stabilizers) IT Imaging agents (contrast; multiphase dispersion systems of poorly water-soluble agents with surface-active properties acting as dispersants or stabilizers) TT Drug delivery systems (emulsions: multiphase dispersion systems
  - Page 58

of poorly water-soluble agents with surface-active properties

acting as dispersants or stabilizers)

Alcohols, biological studies RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (fatty, ethoxylated; multiphase dispersion systems of poorly water-soluble agents with surface-active properties acting as dispersants or stabilizers) IT Nervous system agents (qanglionic blocking agents; multiphase dispersion systems of poorly water-soluble agents with surface-active properties acting as dispersants or stabilizers) Hydrocarbons, biological studies RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (halo; multiphase dispersion systems of poorly water-soluble agents with surface-active properties acting as dispersants or stabilizers) Drug delivery systems (liqs., dispersions; multiphase dispersion systems of poorly water-soluble agents with surface-active properties acting as dispersants or stabilizers) Hemoglobins RL: BSU (Biological study, unclassified); BIOL (Biological study) (modifiers; multiphase dispersion systems of poorly water-soluble agents with surface-active properties acting as dispersants or stabilizers) Adrenoceptor agonists IT Adrenoceptor antagonists Alkylating agents, biological Allergy inhibitors Analgesics Anesthetics Antacids Anthelmintics Anti-inflammatory agents Antiarrhythmics Antibacterial agents Antibiotics Anticoagulants Anticonvulsants Antidepressants Antidiabetic agents Antidiarrheals Antidotes Antihistamines Antihypertensives Antimalarials Antipyretics Antirheumatic agents Antithyroid agents Antitumor agents Antitussives Antiviral agents Anxiolytics Appetite depressants Cholinergic agonists Cholinergic antagonists Coating materials Cosmetics Diagnostic agents Dietary supplements Diuretics Dopamine agonists Drugs Fungicides Hemostatics Hypnotics and Sedatives Hypolipemic agents

Imaging agents

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Immunomodulators
Immunostimulants
Immunosuppressants
Muscarinic agonists
Muscarinic antagonists
Muscle relaxants
Nervous system stimulants
Particle size
Pesticides
Protozoacides
Psychotropics
Radiopharmaceuticals
Sterilization and Disinfection
Vaccines
Vasodilators
β-Adrenoceptor antagonists
   (multiphase dispersion systems of poorly water-soluble
   agents with surface-active properties acting as
   dispersants or stabilizers)
Acids, biological studies
Albumins, biological studies
Alcohols, biological studies
Aldehydes, biological studies
Alkaloids, biological studies
Amines, biological studies
Antibodies and Immunoglobulins
Aromatic hydrocarbons, biological studies
Canola oil
Carbohydrates, biological studies
Caseins, biological studies
Corticosteroids, biological studies
Cottonseed oil
Cycloalkanes
Cycloalkenes
Cyclosiloxanes
Diglycerides
Esters, biological studies
Ethers, biological studies
Glycerides, biological studies
Glycoproteins
Hormones, animal, biological studies
Ketones, biological studies
Lysophospholipids
Monoglycerides
Peanut oil
Peptides, biological studies
Phosphatidylethanolamines, biological studies
Polyoxyalkylenes, biological studies
Polysaccharides, biological studies
Prostaglandins
Proteins
Ouaternary ammonium compounds, biological studies
Safflower oil
Sex hormones
Sovbean oil
Vitamins
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
   (multiphase dispersion systems of poorly water-soluble
   agents with surface-active properties acting as
   dispersants or stabilizers)
Dispersing agents
   (multiphase dispersion systems of poorly water-soluble
   agents with surface-active properties acting as self-
   dispersants and self-stabilizers)
Stabilizing agents
   (multiphase dispersion systems of poorly water-soluble
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10/591,654-306094-EIC SEARCH agents with surface-active properties acting as self-stabilizers) Bile acids Bile salts Phosphatidic acids Phosphatidylcholines, biological studies Phosphatidylglycerols Phosphatidylinositols Phosphatidylserines Phospholipids, biological studies RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (multiphase dispersion systems of poorly water-soluble agents with surface-active properties acting as self-stabilizers) Surfactants (nonionic: multiphase dispersion systems of poorly water-soluble agents with surface-active properties acting as self-stabilizers) Drug delivery systems (ophthalmic; multiphase dispersion systems of poorly water-soluble agents with surface-active properties acting as dispersants or stabilizers) Drug delivery systems (oral; multiphase dispersion systems of poorly water-soluble agents with surface-active properties acting as dispersants or stabilizers) Nanoparticles (organic phase comprising; multiphase dispersion systems of poorly water-soluble agents with surface-active properties acting as dispersants or stabilizers) Drug delivery systems (parenterals; multiphase dispersion systems of poorly water-soluble agents with surface-active properties acting as dispersants or stabilizers) TT Drug delivery systems (rectal; multiphase dispersion systems of poorly water-soluble agents with surface-active properties acting as dispersents or stabilizers) Phospholipids, biological studies RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (soya; multiphase dispersion systems of poorly water-soluble agents with surface-active properties acting as dispersants or stabilizers) Liquid-liquid interface Liquid-solid interface (stabilization of: multiphase dispersion systems of poorly water-soluble agents with surface-active properties acting as dispersents or stabilizers) Drug delivery systems (topical; multiphase dispersion systems of poorly water-soluble agents with surface-active properties acting as dispersants or stabilizers) Drug delivery systems (transdermal; multiphase dispersion systems of poorly water-soluble agents with surface-active properties acting as dispersents or stabilizers) Drug delivery systems (vaginal; multiphase dispersion systems of poorly water-soluble agents with surface-active properties acting as dispersants or stabilizers) Surfactants (zwitterionic; multiphase dispersion systems of poorly water-soluble agents with surface-active properties acting as self-stabilizers)

T 131179-95-8, Efaproxiral

water-soluble agents with surface-active properties acting as self-stabilizers)

- 61909-81-7, Polyethylene glycol 12-hydroxystearate
  - RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (Solutol; multiphase dispersion systems of poorly

water-soluble agents with surface-active properties acting as dispersants or stabilizers)

TT 9001-08-5, Cholinesterase

110617-70-4, Poloxamine

- RL: BSU (Biological study, unclassified); BIOL (Biological study) (inhibitors: multiphase dispersion systems of poorly water-soluble agents with surface-active properties acting as
- dispersants or stabilizers) TT 57-09-0, Cetyltrimethylammonium bromide 69-89-6D, Xanthine, 81-24-3, Taurocholic acid 83-44-3, Deoxycholic acid 100-51-6, Benzyl alcohol, biological studies 107-46-0, Hexamethyldisiloxane 108-32-7, Propylene carbonate 109-99-9, Tetrahydrofuran, biological studies 112-92-5, Stearyl alcohol 139-07-1, Lauryl dimethylbenzylammonium chloride 141-78-6, Ethyl acetate, biological studies 145-42-6, Sodium taurocholate 302-95-4, Sodium deoxycholate 360-65-6, Glycodeoxycholic acid 461-05-2D, Carnitine hydrochloride, acyl derivs. 475-31-0, Glycocholic acid 863-57-0, Sodium glycocholate 2462-63-7, Dioleoylphosphatidylethanolamine 4537-76-2, Distearoylphosphatidylethanolamine 5681-36-7, Dipalmitoylphosphatidylethanolamine 8001-27-2, Hirudin 9002-89-5, Polyvinyl alcohol 9003-11-6, Ethylene oxide-propylene oxide copolymer 9003-39-8, Polyvinylpyrrolidone 9004-34-6, Cellulose, biological studies 9004-64-2, Hydroxypropyl cellulose 9004-65-3, Hydroxypropyl methyl cellulose 9004-67-5, Methyl cellulose 9005-25-8, Starch, biological studies 9005-25-8D, Starch, derivs. 9005-27-0, Hydroxyethyl starch 9005-49-6, Heparin, biological studies 9005-63-4D, Polyoxyethylene sorbitan, fatty acid esters 9007-12-9, Calcitonin 9012-76-4, Chitosan 12441-09-7D, Sorbitan, esters 20255-95-2, Dimyristoylphosphatidylethanolamine 25322-68-3, Polyethylene glycol 25322-68-3D, Polyoxyethylene glycol, fatty acid esters or phospholipid conjugates 25322-69-4.

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (multiphase dispersion systems of poorly water-soluble agents with surface-active properties acting as dispersants or stabilizers)

Polypropylene glycol 31566-31-1, Glycerol monostearate 36653-82-4, Cetyl alcohol 37353-59-6, Hydroxymethyl cellulose

56-81-5D, Glycerol, esters 81-25-4, Cholic acid 151-21-3, Sodium lauryl sulfate, biological studies 472-15-1, Betulinic acid 577-11-7, Dioctyl sodium sulfosuccinate 745-65-3, Alprostadil 1951-25-3, Amiodarone 4568-28-9, Triethanolamine stearate 7664-38-2D, Phosphoric acid, alkyl esters 9004-32-4, Sodium carboxymethyl cellulose 9005-38-3, Sodium alginate 10124-65-9, Potassium laurate 13598-36-2D, Phosphonic acid, alkyl esters 34870-92-3D, Polyoxyethylene sulfate, alkyl derivs. RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (multiphase dispersion systems of poorly water-soluble agents with surface-active properties acting as

self-stabilizers) REFERENCE COUNT:

THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

DOCUMENT NUMBER: TITLE: INVENTOR(S):

L138 ANSWER 4 OF 22 HCAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 2004:220420 HCAPLUS Full-text 140:272716 Formulations comprising water-soluble granulates Drever, Pierre; Haiss, Elke; Iltis, Laure; Kvita, Petr; Menge, Ullrich

2003 0826

0826

2005 0211

PATENT ASSIGNEE(S): Ciba Specialty Chemicals Holding Inc., Switz.

SOURCE:

PCT Int. Appl., 62 pp. CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATI

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|----|----------------|-------|------|-----|-----|-----|-----|------|------|-----|------|------|-------|-----|-----|----------|----------|
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|    |                |       |      |     |     | -   |     |      |      |     |      |      |       |     |     |          |          |
|    | WO 2004022693  |       |      |     |     | A1  |     | 2004 | 0318 |     | WO 2 | 003- | EP94  | 09  |     |          |          |
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GQ, GW, ML, MR, NE, SN, TD, TG A1 20040329 AU 2003-267010 AU 2003267010

<--EP 1534814 A1 20050601 EP 2003-747927 2003 0826 /--

EP 1534814 B1 20060524 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ,

EE, HU, SK BR 2003014340 20050705 BR 2003-14340 2003 0826 <--CN 1678728 A 20051005 CN 2003-820763 2003

<--CN 1320090 20070606 С JP 2005537370 Т 20051208 JP 2004-533402 2003 0826 <--AT 327313 20060615 AT 2003-747927 T

2003 0826 <--ES 2263996 Т3 20061216 ES 2003-747927 2003 0826

IN 2004CN03172 20060303 IN 2004-CN3172 2004 1213 A 20050419 MX 2005001651 MX 2005-1651

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                               20051013 US 2005-526093
                                                                  2005
                                                                  0223
PRIORITY APPLN. INFO.:
                                           EP 2002-405766
                                                                  2002
                                                                  0904
                                           WO 2003-EP9409
                                                                  2003
                                                                  0826
                                              <--
                        MARPAT 140:272716
OTHER SOURCE(S):
ED Entered STN: 19 Mar 2004
AB
     The present invention relates to (i) formulations comprising water-soluble granulates
     of phthalocyanine compds., (ii) a process for the preparation thereof, and (iii) the
     use thereof in washing agent and washing agent additive formulations. Thus, a
     composition comprising 564 g 19.5% aqueous aluminum phthalocyanine solution 564 and
     1857 g an aqueous solution containing 541 g anionic dispersing agent and 270 g sodium
     sulfate was stirred at 25° for 1 h and dried in a spray-dryer with inlet air
     temperature 190° and exhaust air temperature 105° to give a granulate with average
     particle d. 70 µm, bulk d. 520 g/L, and residual water content 6%, 0.03% of which was
     mixed with sodium laurylbenzenesulfonate 10, sodium laurylsulfate 3, Neodol 23-6.5E 4,
     zeolite A 25, sodium percarbonate 20, perfume 0.1, cellulose 1.5, CM-cellulose 2,
     sodium sulfate 15, sodium carbonate 10, and tetraacetyl ethylenediamine 3% to give a
     washing agent.
   79-10-75, Acrylic acid, ester, polymers
    108-05-4, Vinyl acetate, uses 9003-20-7,
    Polyvinyl acetate 9003-39-8, Polyvinyl pyrrolidone
    25085-34-1, Acrylic acid-styrene copolymer
    25086-89-9, Vinyl acetate-vinyl pyrrolidone copolymer
    30581-59-0, Dimethylaminoethyl methacrylate-vinyl
    pyrrolidone copolymer 55989-05-4, Ethyl
    acrylate-methacrylic acid-methyl methacrylate copolymer ammonium
    salt 102972-64-5, Dimethylaminoethyl
    methacrylate-vinyl caprolactam-vinyl
    pyrrolidone copolymer 131954-48-8
    156218-88-1, Dimethylaminopropyl methacrylate-vinyl
    pyrrolidone copolymer 478243-90-2,
    Dimethylaminopropylmethacrylamide-vinyl pyrrolidone copolymer
    RL: MOA (Modifier or additive use); USES (Uses)
        (dispersing agent; formulations comprising
       water-soluble granulates)
   79-10-7 HCAPLUS
RN
CN
    2-Propenoic acid (CA INDEX NAME)
   108-05-4 HCAPLUS
DM
CM
    Acetic acid ethenyl ester (CA INDEX NAME)
Aco_CH__CH2
    9003-20-7 HCAPLUS
   Acetic acid ethenyl ester, homopolymer (CA INDEX NAME)
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CM 1
    CRN 108-05-4
    CMF C4 H6 O2
 Aco_CH__CH2
   9003-39-8 HCAPLUS
RN
CN 2-Pyrrolidinone, 1-ethenyl-, homopolymer (CA INDEX NAME)
    CRN 88-12-0
    CMF C6 H9 N O
RN 25085-34-1 HCAPLUS
CN 2-Propenoic acid, polymer with ethenylbenzene (CA INDEX NAME)
    CM 1
    CRN 100-42-5
    CMF C8 H8
 H2C___CH_Ph
    CM 2
    CRN 79-10-7
    CMF C3 H4 O2
RN 25086-89-9 HCAPLUS
CN Acetic acid ethenyl ester, polymer with 1-ethenyl-2-pyrrolidinone
    (CA INDEX NAME)
    CM 1
    CRN 108-05-4
    CMF C4 H6 O2
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CM 2

CRN 88-12-0 CMF C6 H9 N O



RN 30581-59-0 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-(dimethylamino)ethyl ester, polymer with 1-ethenyl-2-pyrrolidinone (CA INDEX NAME)

CM 1

CRN 2867-47-2 CMF C8 H15 N O2

CM 2

CRN 88-12-0

CMF C6 H9 N O

RN 55989-05-4 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with ethyl 2-propenoate and methyl 2-methyl-2-propenoate, ammonium salt (CA INDEX NAME)

CM 1

CRN 25133-97-5

CMF (C5 H8 O2 . C5 H8 O2 . C4 H6 O2)x CCI PMS

CM 2

CRN 140-88-5

CMF C5 H8 O2

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CM 3
    CRN 88-12-0
    CMF C6 H9 N O
    131954-48-8 HCAPLUS
CN
    1-Propanaminium, N,N,N-trimethyl-3-[(2-methyl-1-oxo-2-propen-1-
    yl)amino]-, chloride (1:1), polymer with 1-ethenyl-2-pyrrolidinone
      (CA INDEX NAME)
    CM 1
    CRN 51410-72-1
    CMF C10 H21 N2 O . C1
         ■ c1 =
    CM 2
    CRN 88-12-0
    CMF C6 H9 N O
RN
   156218-88-1 HCAPLUS
CN
   2-Propenoic acid, 2-methyl-, 3-(dimethylamino)propyl ester,
    polymer with 1-ethenyl-2-pyrrolidinone (9CI) (CA INDEX NAME)
    CM 1
    CRN 20602-77-1
    CMF C9 H17 N O2
 Me2N_(CH2)3_0_U_U_Me
```

```
CM 2
    CRN 88-12-0
    CMF C6 H9 N O
   478243-90-2 HCAPLUS
   2-Propenamide, N-[(dimethylamino)propy1]-2-methyl-, polymer with
CN
    1-ethenyl-2-pyrrolidinone (CA INDEX NAME)
    CM 1
    CRN 67296-21-3
    CMF C9 H18 N2 O
    CCI IDS
 Me_U_U_NHPr-n
    CM 2
    CRN 88-12-0
    CMF C6 H9 N O
IT 64-19-7, Acetic acid, uses 68-04-2, Sodium
    citrate 77-92-9, Citric acid, uses 79-10-7
     , Acrylic acid, uses 7647-14-5, Sodium chloride, uses
    7757-82-6, Sodiumsulfate, uses 9003-01-4,
    Polyacrylic acid
    RL: MOA (Modifier or additive use); USES (Uses)
       (formulations comprising water-soluble granulates)
RN 64-19-7 HCAPLUS
```

CN Acetic acid (CA INDEX NAME)

- RN 68-04-2 HCAPLUS
- CN 1,2,3-Propanetricarboxylic acid, 2-hydroxy-, sodium salt (1:3) (CA INDEX NAME)

- ●3 Na
- RN 77-92-9 HCAPLUS
- CN 1,2,3-Propanetricarboxylic acid, 2-hydroxy- (CA INDEX NAME)

- RN 79-10-7 HCAPLUS
- CN 2-Propenoic acid (CA INDEX NAME)

- RN 7647-14-5 HCAPLUS
- CN Sodium chloride (NaCl) (CA INDEX NAME)

Cl\_Na

- RN 7757-82-6 HCAPLUS
- CN Sulfuric acid sodium salt (1:2) (CA INDEX NAME)

**●**0 ×

```
9003-01-4 HCAPLUS
CN
    2-Propenoic acid, homopolymer (CA INDEX NAME)
    CRN 79-10-7
    CMF C3 H4 O2
 HO_U_CH_CH2
   ICM C11D017-06
IC
    ICS C11D003-39
     46-5 (Surface Active Agents and Detergents)
     formulation comprising water soluble granulate; aluminum
     phthalocyanine anionic dispersing
     agent sodium sulfate granulate prepa
ΙT
    Dispersing agents
     Surfactants
        (anionic: formulations comprising water-soluble
       granulates)
    Sulfonic acids, uses
     RL: MOA (Modifier or additive use); USES (Uses)
        (arenesulfonic, salts, alkyl, dispersing
        agents; formulations comprising water-soluble granulates)
     Polyoxyalkylenes, uses
     RL: MOA (Modifier or additive use); USES (Uses)
        (block, dispersing agents; formulations
       comprising water-soluble granulates)
     Polyoxyalkylenes, uses
     RL: MOA (Modifier or additive use); USES (Uses)
        (dispersing agent; formulations comprising
       water-soluble granulates)
    Acrylic polymers, uses
     Gelatins, uses
     RL: MOA (Modifier or additive use): USES (Uses)
        (dispersing agents; formulations comprising
       water-soluble granulates)
ΙT
    Bleaching agents
       Dispersing agents
     Dves
     Fillers
     Fluorescent brighteners
     Pigments, nonbiological
     Textiles
    Wetting agents
        (formulations comprising water-soluble granulates)
    A zeolites
     Aluminosilicates, uses
     Borates
     Carbonates, uses
     Carboxylic acids, uses
     Diphosphates
    Halides
    Kaolin, uses
    Peroxides, uses
    Peroxysulfates
    Phosphates, uses
    Polysiloxanes, uses
       Salts, uses
    Silicates, uses
```

Sulfates, uses Sulfites Zeolites (synthetic), uses RL: MOA (Modifier or additive use); USES (Uses) (formulations comprising water-soluble granulates) Carboxylic acids, uses RL: MOA (Modifier or additive use); USES (Uses) (polycarboxylic, dispersing agents; formulations comprising water-soluble granulates) Carboxvlic acids, uses RL: MOA (Modifier or additive use); USES (Uses) (polycarboxylic, salts; formulations comprising water-soluble granulates) Sulfonic acids, uses RL: MOA (Modifier or additive use); USES (Uses) (polymers, dispersing agents; formulations comprising water-soluble granulates) Sulfonic acids, uses RL: MOA (Modifier or additive use); USES (Uses) (polymers, heterocyclic, dispersing agents; formulations comprising water-soluble granulates) Sulfonic acids, uses RL: MOA (Modifier or additive use); USES (Uses) (sodium salts, polymers, dispersing agents; formulations comprising water-soluble granulates) Polyphosphates RL: MOA (Modifier or additive use); USES (Uses) (sodium salts; formulations comprising water-soluble granulates) Polymers, uses RL: MOA (Modifier or additive use); USES (Uses) (sulfo-containing, heterocyclic, dispersing agents; formulations comprising water-soluble granulates) Aromatic compounds RL: MOA (Modifier or additive use); USES (Uses) (sulfonates, alkyl, dispersing agents; formulations comprising water-soluble granulates) Polymers, uses RL: MOA (Modifier or additive use); USES (Uses) (water-soluble, dispersing agents; formulations comprising water-soluble granulates) 9017-33-8, Naphthalenesulfonic acid, polymer with formaldehyde RL: MOA (Modifier or additive use); USES (Uses) (anionic dispersing agent: formulations comprising water-soluble granulates) 25608-40-6, Polyaspartic acid RL: MOA (Modifier or additive use); USES (Uses) (dispersing agent, assumed monomers; formulations comprising water-soluble granulates) 57-50-1, Sucrose, uses 63-42-3, Lactose 79-10-7D, Acrylic acid, ester, polymers 88-12-0, uses 108-05-4 , Vinyl acetate, uses 1321-69-3D, Naphthalenesulfonic acid sodium salt, alkyl derivs. 8061-51-6, Sodium lignosulfonate 9000-01-5, Arabic qum 9000-65-1, Tragacanth 9002-89-5, Polyvinyl alcohol 9003-05-8, Polyacrylamide 9003-11-6, Ethylene oxide-propylene oxide copolymer 9003-20-7, Polyvinyl acetate 9003-39-8, Polyvinyl pyrrolidone 9004-32-4, Carboxymethyl cellulose 9004-64-2, Hydroxypropyl cellulose 9050-31-1, Hydroxypropyl methylcellulose phthalate 9050-36-6, Maltodextrin 25085-34-1, Acrylic acid-styrene copolymer 25086-89-9, Vinyl acetate-vinyl pyrrolidone copolymer 25155-19-5D, Naphthalenesulfonic acid, alkyl derivs., polymers, sodium salts 25322-68-3, Polyethylene glycol 26063-13-8, Polyaspartic acid 26101-52-0, Polyethylenesulfonic 30581-59-0, Dimethylaminoethyl methacrylate-vinyl

тт

```
pyrrolidone copolymer 37353-59-6, Hydroxymethyl cellulose
     50851-57-5, Polystyrenesulfonic acid 52503-47-6, Ethylene
     oxide-propylene oxide copolymer ether with ethylenediamine
     $5989-05-4, Ethyl acrylate-methacrylic acid-methyl
     methacrylate copolymer ammonium salt 58226-28-1
     64519-82-0, Isomalt 102972-64-5, Dimethylaminoethyl
     methacrylate-vinyl caprolactam-vinyl
     pyrrolidone copolymer 131954-48-8
     156218-88-1, Dimethylaminopropyl methacrylate-vinyl
     pyrrolidone copolymer 478243-90-2.
     Dimethylaminopropylmethacrylamide-vinyl pyrrolidone copolymer
     RL: MOA (Modifier or additive use); USES (Uses)
        (dispersing agent; formulations comprising
        water-soluble granulates)
     64-18-6, Formic acid, uses 64-19-7, Acetic
     acid, uses 65-85-0, Benzoic acid, uses 68-04-2,
     Sodium citrate 71-52-3, Hydrogen carbonate, uses
     77-92-9, Citric acid, uses 79-09-4, Propionic acid, uses 79-10-7, Acrylic acid, uses 83-86-3 87-69-4, Tartaric
     acid, uses 88-99-3, Phthalic acid, uses 100-21-0, Terephthalic acid, uses 104-15-4, p-Toluenesulfonic acid, uses 110-15-6,
     Succinic acid, uses 110-16-7, Maleic acid, uses 144-62-7,
     Oxalic acid, uses 497-19-8, Sodium carbonate, uses 526-95-4,
     Gluconic acid 563-69-9, Carbonoperoxoic acid 1344-09-8, Sodium
     silicate 2809-21-4, Hydroxyethanediphosphonic acid 3313-92-6,
     Sodium percarbonate 7631-86-9, Silica, uses 7632-05-5, Sodium
     phosphate 7647-14-5, Sodium chloride, uses
     7757-82-6, Sodiumsulfate, uses 7758-29-4, Sodium
     tripolyphosphate 8061-51-6D, Sodium lignosulfonate, oxy derivs.
     9001-92-7, Protease 9003-01-4, Polyacrylic acid 9012-54-8, Cellulase 10332-33-9, Sodium perborate monohydrate
     11138-47-9, Sodium perborate 13463-67-7, Titaniumoxide, uses
     14807-96-6, Talc, uses 14987-04-3, Magnesium trisilicate 15477-76-6, Phosphonate 41376-15-2D, Chloromethylbiphenyl,
     polymers with naphthalenesulfonic acid 102568-16-1D,
     ealte.
     RL: MOA (Modifier or additive use); USES (Uses)
        (formulations comprising water-soluble granulates)
REFERENCE COUNT: 10 THERE ARE 10 CITED REFERENCES AVAILABLE
                                FOR THIS RECORD. ALL CITATIONS AVAILABLE
                                IN THE RE FORMAT
L138 ANSWER 5 OF 22 HCAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2004:20006 HCAPLUS Full-text
DOCUMENT NUMBER:
                         140:78230
TITLE:
                         Heat-sensitive delayed-tack antiblocking
                         adhesives containing no endocrine disruptors
                         and their manufacture
INVENTOR(S):
                         Yasuda, Jun
PATENT ASSIGNEE(S):
                        The Inctec Inc., Japan
SOURCE:
                         Jpn. Kokai Tokkyo Koho, 9 pp.
                         CODEN: JKXXAF
DOCUMENT TYPE:
                        Patent
LANGUAGE:
                         Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:
     PATENT NO. KIND DATE APPLICATION NO.
                                                                    DATE
     JP 2004002772 A 20040108 JP 2003-91061
                                                                      2003
                                                                      0328
PRIORITY APPLN. INFO.:
                                             JP 2002-114528
                                                                     2002
```

TT

0417

OTHER SOURCE(S): MARPAT 140:78230 Entered STN: 11 Jan 2004

Title adhesives contain aqueous dispersions of thermoplastic resins with Tq -20 to 100°, trimethylolpropane tribenzoate (the benzene rings may be substituted with alkyl, OH, and/or NH2), and aqueous dispersions. Thus, aqueous dispersion containing Polysol TI 3052 (styrene-acrylate ester copolymer) and NeoCryl BT 26 (styrene-acrylate ester copolymer) 35.00, trimethylolpropane tribenzoate 27.50, aqueous solution of SN dispersant 5045 ( anionic surfactant) 22.50, and SE 50 (tackifier) 15.00 parts were blended, applied on the back side of coated paper, heated at 120°, and bonded to a glass plate to show firm adhesion to the substrate.

79-10-70, Acrylic acid, esters, polymers

25086-29-7, Styrene-vinylpyrrolidone copolymer

RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)

(phthalate ester-free heat-sensitive delayed-tack antiblocking adhesives containing trimethylologopane tribenzoates)

RN 79-10-7 HCAPLUS

CN 2-Propenoic acid (CA INDEX NAME)

25086-29-7 HCAPLUS

CN 2-Pyrrolidinone, 1-ethenyl-, polymer with ethenylbenzene (CA INDEX NAME)

CM 1

CRN 100-42-5 CMF C8 H8

H2C\_\_\_CH\_Ph

CM 2

CRN 88-12-0 CMF C6 H9 N O

ICM C09J201-00

ICS C09J011-06

38-3 (Plastics Fabrication and Uses)

74-85-1D, Ethylene, polymers with acrylate esters 79-10-70, Acrylic acid, esters, polymers 100-42-5D, Styrene, polymers with acrylate esters 108-05-4D, Vinyl acetate, polymers with acrylate esters 9003-20-7, Poly(vinyl acetate) 9003-55-8, Butadiene-styrene copolymer 9003-63-8, Poly(butyl methacrylate) 9011-06-7, Vinyl chloride-vinylidene chloride

```
10/591,654-306094-EIC SEARCH
     copolymer 25037-78-9, Ethylene-vinyl chloride copolymer
     25086-29-7, Styrene-vinylpyrrolidone copolymer
     299926-27-5, Polysol TI 3052 316354-55-9, NeoCryl BT 26
     RL: POF (Polymer in formulation); TEM (Technical or engineered
     material use); USES (Uses)
        (phthalate ester-free heat-sensitive delayed-tack antiblocking
        adhesives containing trimethylolpropane tribenzoates)
L138 ANSWER 6 OF 22 HCAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2003:309601 HCAPLUS Full-text DOCUMENT NUMBER: 138:322908
TITLE:
                       High-yield papermaking methods
INVENTOR(S): Kubota, Isamu; Wakatsuki
PATENT ASSIGNEE(S): Hymo Corporation, Japan
                       Kubota, Isamu; Wakatsuki, Shogo; Kodaka, Emiko
SOURCE:
                       Jpn. Kokai Tokkyo Koho, 10 pp.
                        CODEN: JKXXAF
DOCUMENT TYPE:
                        Patent
LANGUAGE:
                        Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:
     PATENT NO
                       KIND DATE
                                       APPLICATION NO.
                                                                  DATE
     JP 2003119696
                       A 20030423 JP 2001-314658
                                                                   2001
                                                                   1012
PRIORITY APPLN. INFO.:
                                          JP 2001-314658
                                                                   2001
                                                                   1012
                                               <--
ED
     Entered STN: 23 Apr 2003
AB
     Cationic and/or amphoteric aqueous polymers and anionic polymer dispersions containing
     <100 µm fine inorg, granules are added to pulping liquid, and the amionic polymer
     dispersions are prepared by polymerizing 5-100 mol% CHR2:CR1AY1 (R1 = H, Me,
     carboxymethyl, A = SO3, C6H4SO3, CONHCMe2CH2SO3, C6H4CO2, or CO2, R2 = H or CO2Y2, Y1,
     Y2 = H or cations) with 0-95 mol% nonionic monomers in the presence of inorg, granules
     and polymer dispersing agents in aqueous selt solns. Thus, a cationic 50:50 acrylamide-
     acryloyloxyethyltrimethylammonium chloride copolymer, an amphoteric 40:40:20
     acrylamide-acryloyloxyethyltrimethylammonium chloride-sodium acrylate copolymer, and an
     anionic bentonite-containing acrylamide-acrylic acid-Na acrylate copolymer were
     prepared
     9003-06-9P, Acrylamide-acrylic acid copolymer
     62649-23-4P. Acrylamide-acrylic acid-sodium acrylate
     copolymer 142943-69-9P 494852-63-0P.
     Acrylamide-acrylic acid-itaconic acid-sodium acrylate-sodium
     itaconate copolymer 514225-71-99,
     Acrylamide-2-acrylamido-2-methylpropanesulfonic acid-acrylic
     acid-sodium acrylate copolymer
     RL: IMF (Industrial manufacture): MOA (Modifier or additive use);
     PREP (Preparation); USES (Uses)
        (high-yield papermaking sethods using cationic and
        amphoteric and inorg, granule-containing anionic polymers)
PМ
   9003-06-9 HCAPLUS
CN
   2-Propenoic acid, polymer with 2-propenamide (CA INDEX NAME)
     CM 1
     CRN 79-10-7
     CMF C3 H4 O2
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но\_й\_сн\_св2

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CM 2
    CRN 79-06-1
    CMF C3 H5 N O
 H2N_U_CH__CH2
RN 62649-23-4 HCAPLUS
CN 2-Propenoic acid, polymer with 2-propenamide and sodium
    2-propenoate (1:1) (CA INDEX NAME)
    CM 1
    CRN 7446-81-3
    CMF C3 H4 O2 . Na
 HO_ U_ CH__ CH2
     ● Na
    CM 2
    CRN 79-10-7
    CMF C3 H4 O2
    CM 3
    CRN 79-06-1
    CMF C3 H5 N O
 Hon_W_CH_CH2
RN 142943-69-9 HCAPLUS
    Ethanaminium, N, N, N-trimethyl-2-[(1-oxo-2-propen-1-yl)oxy]-,
CN
    chloride (1:1), polymer with 2-propenamide and sodium 2-propenoate
```

(1:1) (CA INDEX NAME)

```
CM 1
       CRN 44992-01-0
       CMF C8 H16 N O2 . C1
                  ■ c1=
       CM 2
       CRN 7446-81-3
CMF C3 H4 O2 . Na
        Na Na
       CM 3
       CRN 79-06-1
CMF C3 H5 N O
  H2N____CH___CH2
      494852-63-0 HCAPLUS
Butanedioic acid, methylene-, polymer with 2-propenamide,
2-propenoic acid, sodium methylenebutanedioate and sodium
2-propenoate (9CI) (CA INDEX NAME)
CN
       CM 1
       CRN 50976-31-3
       CMF C5 H6 O4 . x Na
  CH2
HO2C___CH2__CO2H
```

x Na

```
CM 2
    CRN 7446-81-3
CMF C3 H4 O2 . Na
 HO____CH___CH2
     Na Na
     CM 3
    CRN 97-65-4
CMF C5 H6 O4
      CH2
 HO2C_U_CH2_CO2H
    CM 4
    CRN 79-10-7
     CMF C3 H4 O2
     CM 5
    CRN 79-06-1
CMF C3 H5 N O
 Hon_U_CH_CHo
RN 514225-71-9 HCAPLUS
CN 2-Propenoic acid, polymer with
     2-methyl-2-[(1-oxo-2-propen-1-yl)amino]-1-propanesulfonic acid,
     2-propenamide and sodium 2-propenoate (1:1) (CA INDEX NAME)
     CM 1
     CRN 15214-89-8
     CMF C7 H13 N O4 S
```



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ICM D21H021-10
     ICS C08F002-16; C08F002-44; C08F020-06; C08F020-58; C08F022-02;
         D21H017-42
     43-7 (Cellulose, Lignin, Paper, and Other Wood Products)
тт
    Polyelectrolytes
        (amphoteric; high-vield papermaking methods using
       cationic and amphoteric and inorg, granule-containing anionic
       polymers)
    Polyelectrolytes
        (anionic; high-yield papermaking methods using
       cationic and amphoteric and inorg, granule-containing anionic
       polymers)
    Polyelectrolytes
        (cationic; high-vield papermaking methods using
       cationic and amphoteric and inorg, granule-containing anionic
       polymers)
ΙT
    Dispersing agents
     Paper
        (high-yield papermaking methods using cationic and
        amphoteric and inorg. granule-containing anionic polymers)
    Bentonite, uses
     Inorganic compounds
     Kaolin, uses
     Polymers, uses
     RL: MOA (Modifier or additive use); USES (Uses)
        (high-yield papermaking methods using cationic and
        amphoteric and inorg, granule-containing anionic polymers)
IT
    Vinyl compounds, uses
     RL: IMF (Industrial manufacture); MOA (Modifier or additive use);
     PREP (Preparation): USES (Uses)
        (polymers; high-yield papermaking methods using
        cationic and amphoteric and inorg, granule-containing anionic
       polymers)
TT
    Polymerization
        (radical; high-vield papermaking methods using
       cationic and amphoteric and inorg, granule-containing anionic
       polymers)
     9003-06-9P, Acrylamide-acrylic acid copolymer
     62649-23-49, Acrylamide-acrylic acid-sodium acrylate
     copolymer
                69418-26-4P, Acrylamide-
     acryloyloxyethyltrimethylammonium chloride copolymer
     142943-69-9P 494852-63-0P, Acrylamide-acrylic
     acid-itaconic acid-sodium acrylate-sodium itaconate copolymer
     514225-71-9P, Acrylamide-2-acrylamido-2-
     methylpropanesulfonic acid-acrylic acid-sodium acrylate copolymer
     RL: IMF (Industrial manufacture); MOA (Modifier or additive use);
     PREP (Preparation); USES (Uses)
        (high-yield papermaking methods using cationic and
        amphoteric and inorg. granule-containing anionic polymers)
    9003-39-8, Poly(N-vinylpyrrolidone) 14807-96-6, Talc,
           26062-79-3, Poly(diallyldimethylammonium chloride)
     38599-26-7, Poly(acrylamide-2-methylpropanesulfonic acid)
     RL: MOA (Modifier or additive use); USES (Uses)
        (high-vield papermaking methods using cationic and
        amphoteric and inorg, granule-containing anionic polymers)
```

10/591.654-306094-EIC SEARCH ACCESSION NUMBER: 2003:111094 HCAPLUS Full-text DOCUMENT NUMBER: 138:153962 TITLE: Water soluble polymer dispersions and their production method INVENTOR(S): Takeda, Hisao; Sugiyama, Toshiaki Hymo Corporation, Japan PATENT ASSIGNEE(S): SOURCE. Jpn. Kokai Tokkyo Koho, 10 pp. CODEN: JEXXAE DOCUMENT TYPE: Patent LANGUAGE: Japanese FAMILY ACC. NUM. COUNT: 1 PATENT INFORMATION: KIND DATE APPLICATION NO. PATENT NO. DATE -----JP 2003041138 A 20030213 JP 2001-226039 2001 0726 DRIORITY ADDIN INFO . JP 2001-226039 2001 0726 ED Entered STN: 13 Feb 2003 ΔB Title dispersions comprise water soluble amionic and/or nonionic polymer particles with particle diameter ≤100 um and aqueous salt solution-soluble synthetic polymers and polyalcs. as dispersing agents. Thus, 17.6 g 60% acrylic acid and 189.1 g 50% acrylamide were neutralized with 2.9 q 30% aqueous sodium hydroxide and polymerized in the presence of 18.6 g 20% aqueous anionic polymer solution obtained from 60 mol% sodium hydroxide-neutralized acrylic acid and 2.1 g glycerin to give an aqueous dispersion with polymer particle diameter 2-20 um, dispersion viscosity 310 mPa-s, and weight average mol. weight 12,000,000. 9033-79-8, Acrylic acid-sodium acrylate copolymer 27790-23-4D, Itaconic acid-methacrylic acid copolymer, salt 30326-74-0D, Methacrylic acid-vinyl pyrrolidone copolymer, salt 76404-20-10, 2-Acrylamido-2-methylpropanesulfonic acid-methacrylic acid copolymer, salt RL: MOA (Modifier or additive use); USES (Uses) (dispersing agent; preparation of water soluble polymer dispersions in presence of dispersing agents) 9033-79-8 HCAPLUS RN CN 2-Propenoic acid, polymer with sodium 2-propenoate (1:1) (CA INDEX NAME) CM 1 CRN 7446-81-3 CMF C3 H4 O2 . Na но\_ \_ сн\_ сн2 Na Na

CM 2

CRN 79-10-7

```
CMF C3 H4 O2
```

```
HO_Ŭ_CH__CH2
RN 27790-23-4 HCAPLUS
CN Butanedioic acid, 2-methylene-, polymer with 2-methyl-2-propenoic
     acid (CA INDEX NAME)
     CM 1
     CRN 97-65-4
     CMF C5 H6 O4
 сн2
но2с_€_сн2_со2н
     CM 2
     CRN 79-41-4
     CMF C4 H6 O2
     CH2
 Me_U_CO2H
RN 30326-74-0 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, polymer with 1-ethenyl-2-pyrrolidinone (CA INDEX NAME)
```



CM 1 CRN 88-12-0 CMF C6 H9 N O

CM 2 CRN 79-41-4 CMF C4 H6 O2

```
Me_U_CO2H
```

RN 76404-20-1 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, polymer with
2-methyl-2-[(1-oxo-2-propen-1-yl)amino]-1-propanesulfonic acid
(CA INDEX NAME)

CM 1

CRN 15214-89-8 CMF C7 H13 N O4 S



CM 2

CRN 79-41-4 CMF C4 H6 O2

IT 62649-23-4P 468721-70-2P 494852-63-0P

RL: IMF (Industrial manufacture); PRP (Properties); PREP (Preparation)

(preparation of water soluble polymer dispersions in presence of dispersing agents)

RN 62649-23-4 HCAPLUS

CN 2-Propenoic acid, polymer with 2-propenamide and sodium 2-propenoate (1:1) (CA INDEX NAME)

CM 1

CRN 7446-81-3 CMF C3 H4 O2 . Na



```
10/591,654-306094-EIC SEARCH
     CM 2
    CRN 79-10-7
CMF C3 H4 O2
 HO_U_CH__CH2
     CM 3
     CRN 79-06-1
     CMF C3 H5 N O
RN 468721-70-2 HCAPLUS
CN 2-Propenoic acid, polymer with
     2-methyl-2-[(1-oxo-2-propenyl)amino]-1-propanesulfonic acid,
     2-methyl-2-[(1-oxo-2-propenyl)amino]-1-propanesulfonic acid
     monosodium salt, 2-propenamide and sodium 2-propenoate (9CI) (CA
     INDEX NAME)
     CM 1
     CRN 15214-89-8
CMF C7 H13 N O4 S
     CM 2
     CRN 7446-81-3
CMF C3 H4 O2 . Na
     Na Na
```

```
CRN 5165-97-9
CMF C7 H13 N O4 S . Na
           CH2_ SO3H
       CM 4
       CRN 79-10-7
       CMF C3 H4 O2
       CM 5
       CRN 79-06-1
CMF C3 H5 N O
  H2N_U_CH_CH2
RN 494852-63-0 HCAPLUS
CN Butanediolo -
       Butanedioic acid, methylene-, polymer with 2-propenamide,
2-propenoic acid, sodium methylenebutanedioate and sodium
2-propenoate (9CI) (CA INDEX NAME)
       CM 1
       CRN 50976-31-3
       CMF C5 H6 O4 . x Na
  CH2
HO2C_U_CH2_CO2H
         ●k Na
```

CM 2

```
CRN 7446-81-3
CMF C3 H4 O2 . Na
```

Na Na

CM 3

CRN 97-65-4 CMF C5 H6 O4

HOOC\_U\_CHO\_COOH

CM 4

CRN 79-10-7

CMF C3 H4 O2

но\_\_ Сн\_\_сн\_

CM 5

CRN 79-06-1

CMF C3 H5 N O

Han H CH. CH

IC ICM C08L101-14

ICS C08F002-20; C08K005-053

CC 35-4 (Chemistry of Synthetic High Polymers)

I water soluble polymer dispersion prodn; sodium acrylate acrylic acid copolymer glycerin dispersing agent; acrylic acid sodium acrylate acrylamide copolymer particle prepn

IT Polyelectrolytes

(anionic, optionally dispersing agent; preparation of water soluble polymer dispersions in presence of dispersing agents)

IT Polyoxyalkylenes, uses

```
RL: MOA (Modifier or additive use): USES (Uses)
        (dispersing agent; preparation of
        water soluble polymer dispersions in presence of
        dispersing agents)
     Polyoxyalkylenes, uses
     RL: MOA (Modifier or additive use); USES (Uses)
        (polyalc. derivs., dispersing agent;
        preparation of water soluble polymer dispersions in
        presence of dispersing agents)
     Alcohols, uses
     RL: MOA (Modifier or additive use); USES (Uses)
        (polyhydric, dispersing agents;
        preparation of water soluble polymer dispersions in
        presence of dispersing agents)
     Dispersing agents
        (preparation of water soluble polymer dispersions
        in presence of dispersing agents)
     Polymers, preparation
     RL: IMF (Industrial manufacture); PRP (Properties); PREP
     (Preparation)
        (water-soluble, optionally dispersing agents;
        preparation of water soluble polymer dispersions in
        presence of dispersing agents)
     117397-25-8P
     RL: IMF (Industrial manufacture); PRP (Properties); PREP
     (Preparation)
        (dispersing agent; preparation of
        water soluble polymer dispersions in presence of
        dispersing agents)
     50-70-4, Sorbitol, uses
                             50-70-4D, Sorbitol, polyoxyalkylene
     derivs.
              56-81-5, Glycerin, uses 57-55-6, Propylene glycol,
     uses 107-21-1, Ethylene glycol, uses
                                            115-77-5.
     Pentaerythritol, uses 115-77-5D, Pentaerythritol,
     polyoxyalkylene derivs. 9033-79-8, Acrylic acid-sodium
     acrylate copolymer 25322-68-3, Polyethylene glycol
     25322-68-3D, Polyethylene glycol, polyalc. derivs.
     Polypropylene glycol 25322-69-4D, Polypropylene glycol, polyalc.
     derivs. 27119-07-9D, 2-Acrylamido-2-methylpropanesulfonic acid
     homopolymer, salt 27790-23-4D, Itaconic
     acid-methacrylic acid copolymer, salt
     30326-74-0D, Methacrylic acid-vinyl pyrrolidone copolymer,
           31694-55-0, Polyethylene glycol glycerin ether
     50851-57-5D, Styrene sulfonic acid homopolymer, salt
     53694-15-8, Polyethylene glycol sorbitol ether 61944-28-3D,
     Butene-maleic anhydride copolymer, salt or amidized
     76404-20-1D, 2-Acrylamido-2-methylpropanesulfonic
     acid-methacrylic acid copolymer, salt
     RL: MOA (Modifier or additive use); USES (Uses)
        (dispersing agent; preparation of
        water soluble polymer dispersions in presence of
        dispersing agents)
     9003-05-8P, Acrylamide homopolymer 62649-23-4P
     468721-70-2P 494852-63-0P
     RL: IMF (Industrial manufacture); PRP (Properties); PREP
     (Preparation)
        (preparation of water soluble polymer dispersions
        in presence of dispersing agents)
     40623-73-2D, Acrylamide-2-acrylamido-2-methylpropanesulfonic acid
     copolymer, salt
     RL: MOA (Modifier or additive use): USES (Uses)
        (preparation of water soluble polymer dispersions
        in presence of dispersing agents)
L138 ANSWER 8 OF 22 HCAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER:
                        2001:10585 HCAPLUS Full-text
DOCUMENT NUMBER:
                        134:76117
TITLE:
                        Mascaras comprising film-forming
```

TT

polymers

INVENTOR(S): polymers Bodelin, Sophie PATENT ASSIGNEE(S): L'oreal, Fr. SOURCE: EUR. Pat. Appl., 29 pp. CODEN: EXXXVW

DOCUMENT TYPE: Patent

LANGUAGES: Patent DOCUMENT TYPE: French

LANGUAGE: FAMI

| FAMILY ACC. NUM. COUNT:<br>PATENT INFORMATION: | 1                |             |                          |              |
|--|------------------|-------------|--------------------------|--------------|
| PATENT NO.                                     | KIND             | DATE        | APPLICATION NO.          | DATE         |
|  |                  |             | EP 2000-401662           | 2000<br>0613 |
| EP 1064919                                     | B1               | 20031119    | <                        | 0013         |
| MC, PT, IE,                                    | DE, DK<br>SI, LT | , ES, FR, G | B, GR, IT, LI, LU, NL, : | SE,          |
| FR 2795635                                     | A1               | 20010105    | FR 1999-8412             | 1999<br>0630 |
| FR 2795635                                     | В1               | 20060915    | <                        |              |
| AT 254444                                      | T                | 20031215    | AT 2000-401662           | 2000<br>0613 |
| ES 2211471                                     | Т3               | 20040716    | <<br>ES 2000-401662      | 2000         |
| CA 2340079                                     | A1               | 20010111    | <<br>CA 2000-2340079     | 0613         |
|  |                  |             | <                        | 2000<br>0620 |
| CA 2340079<br>WO 2001001935                    | C<br>A1          | 20070410    |                          |              |
| WO 2001001333                                  | nı.              | 20010111    |                          | 2000<br>0620 |
| W: BR, CA, CN,<br>BR 2000006902                |                  |             | <<br>BR 2000-6902        | 2000         |
| CN 1195479                                     | С                | 20050406    | <<br>CN 2000-801763      | 0620         |
|  |                  |             | <                        | 2000<br>0620 |
| JP 2001055310                                  | A                | 20010227    |                          | 2000<br>0629 |
| US 6534047                                     | B1               | 20030318    | <<br>US 2000-605435      | 2000<br>0629 |
| MX 2001001629                                  | A                | 20020408    | <<br>MX 2001-1629        | 2001<br>0213 |
| PRIORITY APPLN. INFO.:                         |                  |             | <<br>FR 1999-8412 A      |              |
|  |                  |             | <                        | 0630         |

Page 88

WO 2000-FR1697 W 2000 0620

Entered STN: 05 Jan 2001 Mascaras comprising cationic and anionic polymers and a dispersion of nonionic film-AB forming polymers, e.g. C1-6 alkyl acrylate polymers are disclosed. A mascara contained carnauba wax 7, bees wax 8, rice ban wax 7, candelilla wax 2.5, 2-amino-2methylpropane-1,3-diol 0.2, triethanolamine 2.4, stearic acid 5.4, hydrosol. nonionic polymer 1.72, Et acrylate-Me methacrylate copolymer 0.75, dimethicone copolyol 0.2, sodium polymethacrylate 0.25, JR-400 0.1, pigments 6, preservatives and water q.s. 100 9003-01-4, Acrylic acid homopolymer 9003-06-9 IT , Acrylic acid acrylamide copolymex 9003-39-8 , Polyvinylpyrrolidone 25086-15-1, Methacrylic acid methyl methacrylate copolymer 25087-26-7, Polymethacrylic acid 25212-88-8, Methacrylic acid ethyl acrylate copolymer 26062-56-6, Acrylic acid ethyl acrylate N-tert-butylacrylamide copolymer 29297-55-0, Vinylimidazole vinyl pyrrolidone copolymer 54193-36-1, Sodium polymethacrylate 83120-95-0 RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses) (mascaras comprising film-forming polymers) 9003-01-4 HCAPLUS CN 2-Propenoic acid, homopolymer (CA INDEX NAME) CM 1 CRN 79-10-7 CMF C3 H4 O2 но\_€\_сн\_\_сн2 9003-06-9 HCAPLUS CN 2-Propenoic acid, polymer with 2-propenamide (CA INDEX NAME) CM 1 CRN 79-10-7 CMF C3 H4 O2 CM CRN 79-06-1 CMF C3 H5 N O

```
RN 9003-39-8 HCAPLUS
CN 2-Pyrrolidinone, 1-ethenyl-, homopolymer (CA INDEX NAME)
    CM 1
    CRN 88-12-0
    CMF C6 H9 N O
RN 25086-15-1 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, polymer with methyl
    2-methyl-2-propenoate (CA INDEX NAME)
    CM 1
    CRN 80-62-6
    CMF C5 H8 O2
 H2C 0
Me_U_U_OMe
    CM 2
    CRN 79-41-4
CMF C4 H6 O2
 ме_U_СО2Н
RN 25087-26-7 HCAPLUS
CN
   2-Propenoic acid, 2-methyl-, homopolymer (CA INDEX NAME)
    CM 1
    CRN 79-41-4
    CMF C4 H6 O2
 Me_U_COSH
RN 25212-88-8 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, polymer with ethyl 2-propenoate (CA
    INDEX NAME)
```

```
CM 1
    CRN 140-88-5
    CMF C5 H8 O2
 Eto_U_CH_CH2
    CM 2
    CRN 79-41-4
    CMF C4 H6 O2
 ме_Ц_со<sub>2</sub>н
RN 26062-56-6 HCAPLUS
CN 2-Propenoic acid, polymer with N-(1,1-dimethylethyl)-2-propenamide
    and ethyl 2-propenoate (CA INDEX NAME)
    CM 1
    CRN 140-88-5
CMF C5 H8 O2
 Eto_U_CH__CH2
    CM 2
    CRN 107-58-4
    CMF C7 H13 N O
 t-BunH_U_CH_CH2
    CM 3
    CRN 79-10-7
    CMF C3 H4 O2
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29297-55-0 HCAPLUS
CN
    2-Pyrrolidinone, 1-ethenyl-, polymer with 1-ethenyl-1H-imidazole
    (CA INDEX NAME)
    CM 1
    CRN 1072-63-5
    CMF C5 H6 N2
    CM 2
    CRN 88-12-0
    CMF C6 H9 N O
RN 54193-36-1 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, homopolymer, sodium salt (CA INDEX
    NAME)
    CM 1
    CRN 25087-26-7
    CMF (C4 H6 O2) x
    CCI PMS
         CM
              2
         CRN 79-41-4
         CMF C4 H6 O2
    CH2
 Me_U_CO2H
    83120-95-0 HCAPLUS
RN
CN
    2-Propenoic acid, 2-methyl-, dodecyl ester, polymer with
    1-ethenyl-2-pyrrolidinone and 2-propenoic acid (CA INDEX NAME)
    CM 1
    CRN 142-90-5
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CMF C16 H30 O2

CM 2

CRN 88-12-0 CMF C6 H9 N O



CM 3

CRN 79-10-7 CMF C3 H4 O2

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IC ICM A61K007-06

ICS A61K007-48; A61K007-032

CC 62-3 (Essential Oils and Cosmetics)
IT Polyelectrolytes

(anionic; mascaras comprising film-forming polymers)

IT Polyelectrolytes

(cationic; mascaras comprising film-forming polymers)

IT Polysaccharides, biological studies

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(cationic: mascaras comprising film-forming polymers)

IT Polyoxyalkylenes, biological studies

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(di-Me, Me hydrogen polysiloxane-; mascaras comprising film-

forming polymers)

IT Polysiloxanes, biological studies RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(di-Me, Me hydrogen, polyoxyalkylene-; mascaras comprising film-forming polymers)

IT Cosmetics

(emollients; mascaras comprising film-forming

polymers) IT Cosmetics

(emulsions; mascaras comprising film-forming

IT Cosmetics

```
(makeups; mascaras comprising film-forming polymers)
    Perfumes
     Pigments, nonbiological
     Plasticizers
     Preservatives
     Sequestering agents
    Surfactants
     Thickening agents
        (mascaras comprising film-forming polymers)
   Acids, biological studies
     Acrylic polymers, biological studies
    Alkali metal hydroxides
     Ceramides
    DNA
    Polymers, biological studies
     Polvolefins
     Polysiloxanes, biological studies
     Proteins, general, biological studies
     Trace elements, biological studies
     Vitamins
    Waves
     RL: BUU (Biological use, unclassified); BIOL (Biological study);
     USES (Uses)
        (mascaras comprising film-forming polymers)
        (mascaras; mascaras comprising film-forming polymers)
    Liquids
        (oils; mascaras comprising film-forming polymers)
     Carboxylic acids, biological studies
     RL: BUU (Biological use, unclassified); BIOL (Biological study);
     USES (Uses)
        (polycarboxylic, salts, sodium; mascaras comprising film-
        forming polymers)
     Polysiloxanes, biological studies
     RL: BUU (Biological use, unclassified); BIOL (Biological study);
     USES (Uses)
        (polyoxyalkylene-; mascaras comprising film-forming
       polymers)
    Polyoxyalkylenes, biological studies
     RL: BUU (Biological use, unclassified); BIOL (Biological study);
     USES (Uses)
        (polysiloxane-; mascaras comprising film-forming
       polymers)
     9003-01-4, Acrylic acid homopolymer 9003-05-8,
     Polyacrylamide 9003-06-9, Acrylic acid acrylamide
     copolymer 9003-16-1, Polyfumaric acid
     9003-39-8, Polyvinylpyrrolidone 9004-34-6D, Cellulose,
     ethers, quaternary salts, biological studies
                                                  9010-88-2, Ethyl
     acrylate methyl methacrylate copolymer 9011-16-9, Methyl vinyl
     ether maleic anhydride copolymer 24937-72-2, Polymaleic
     anhvdride
               25014-12-4, Polymethacrylamide 25086-15-1,
    Methacrylic acid methyl methacrylate copolymer
     25087-26-7, Polymethacrylic acid 25119-64-6,
     Polyitaconic acid 25212-88-8, Methacrylic acid ethyl
    acrylate copolymer 25609-89-6, Crotonic acid vinyl acetate
     copolymer 26062-56-6, Acrylic acid ethyl acrylate
    N-tert-butylacrylamide copolymer 26099-09-2, Polymaleic acid
     29297-55-0, Vinylimidazole vinyl pyrrolidone copolymer
     54193-36-1, Sodium polymethacrylate
                                         81859-24-7, JR 400
     83120-95-0
                183151-35-1 185458-93-9
     RL: BUU (Biological use, unclassified); BIOL (Biological study);
    USES (Uses)
        (mascaras comprising film-forming polymers)
OS.CITING REF COUNT:
                       10
                              THERE ARE 10 CAPLUS RECORDS THAT CITE
                              THIS RECORD (14 CITINGS)
REFERENCE COUNT:
                        2
                              THERE ARE 2 CITED REFERENCES AVAILABLE
                              FOR THIS RECORD, ALL CITATIONS AVAILABLE
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IN THE RE FORMAT

L138 ANSWER 9 OF 22 HCAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 2000:808554 HCAPLUS Full-text DOCUMENT NUMBER: 133:351263 TITLE: Mixtures of water-dispersible, silicon-modified comb polymers and physiologically acceptable amionic or amphoteric polymers for use in hair preparations

INVENTOR(S): Koller, Andreas; Detert, Marion PATENT ASSIGNEE(S): Beiersdorf Aktiengesellschaft, Germany

SOURCE: Eur. Pat. Appl., 27 pp. CODEN: EPXXDW

DOCUMENT TYPE: Patent

LAN

FAI PA'

| NGUAGE:<br>MILY ACC. NUM. COUNT:<br>TENT INFORMATION: | German<br>1 |              |                          |      |
|---|-------------|--------------|--------------------------|------|
| PATENT NO.  | KIND        | DATE         | APPLICATION NO.          | DATE |
|   |             |              |                          |      |
| EP 1052267  | A2          | 20001115     | EP 2000-110019           | 2000 |
|   |             |              | <                        | 0512 |
| 10500CF   |             | 00001100     | <                        |      |
| EP 1052267  |             |              |                          |      |
|   |             |              | B, GR, IT, LI, LU, NL, : | SE,  |
| MC, PT, IE,   | SI, LT      | , LV, FI, RO | 0                        |      |
| DE 19922293   | Al          | 20001116     | DE 1999-19922293         |      |
|   |             |              |                          | 1999 |
|   |             |              |                          | 0514 |
|   |             |              | <                        |      |
| HORITY APPLA, INFO.:                                  |             |              | DE 1999-19922293 A       |      |
|   |             |              |                          | 1999 |
|   |             |              |                          | 0514 |
|   |             |              | <                        | 0314 |
|   |             |              | *                        |      |

ED Entered STN: 17 Nov 2000

PR

The title compns. contain comb polymers having main chains bonded via ester groups to AB polyester side chains containing sulfo and silicone groups. A comb polymer was prepared by heating isophthalic acid 282.4, di-Me Na 5-sulfoisophthalate 88.80, polysiloxane diol (mol. weight 4000) 40.00, poly(acrylic acid) (mol. weight 25,000) 3.00, 1,2-propanediol 104.62, diethylene glycol 119.25, Na2CO3 0.60, and (iso-Pro)4Ti 0.60 g at 170-220° with distillation of volatiles and then at 220° in vacuo. Use of the products in hair foams and styling gels is exemplified.

9003-01-4DP, Poly(acrylic acid), reaction products with polyesters and polysiloxane diols 9003-39-8P, Luviskol K 30 25086-89-9P, Luviskol VA 37E 25189-83-7P, Luviskol Plus RL: BUU (Biological use, unclassified); IMF (Industrial manufacture); POF (Polymer in formulation); BIOL (Biological study); PREP (Preparation); USES (Uses) (mixts. of water-dispersible, silicon-modified comb polymers and physiol. acceptable anionic or

amphoteric polymers for use in hair prepns.)

RM 9003-01-4 HCAPLUS

CN 2-Propenoic acid, homopolymer (CA INDEX NAME)

CM 1

CRN 79-10-7 CMF C3 H4 O2

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RN 9003-39-8 HCAPLUS
CN 2-Pyrrolidinone, 1-ethenyl-, homopolymer (CA INDEX NAME)
CM 1

CRN 88-12-0 CMF C6 H9 N O

RN 25086-89-9 HCAPLUS

CN Acetic acid ethenyl ester, polymer with 1-ethenyl-2-pyrrolidinone (CA INDEX NAME)

CM 1

CRN 108-05-4 CMF C4 H6 O2

Aco\_CH\_\_CH2

CM 2

CRN 88-12-0 CMF C6 H9 N O

RN 25189-83-7 HCAPLUS

CN 2H-Azepin-2-one, 1-ethenylhexahydro-, homopolymer (CA INDEX NAME)

CM 1

CRN 2235-00-9

CMF C8 H13 N O



```
26124-25-4, Vinvl acetate-vinvl
    propionate-N-vinvlpvrrolidinone copolymer
    RL: BUU (Biological use, unclassified); POF (Polymer in
    formulation); BIOL (Biological study); USES (Uses)
       (mixts. of water-dispersible, silicon-modified comb
       polymers and physiol. acceptable anionic or
       amphoteric polymers for use in hair prepas.)
    26124-25-4 HCAPLUS
RN
    Propanoic acid, ethenyl ester, polymer with ethenyl acetate and
    1-ethenyl-2-pyrrolidinone (CA INDEX NAME)
    CM 1
    CRN 108-05-4
    CMF C4 H6 O2
 Aco_CH__CH2
    CM
        2
    CRN 105-38-4
    CMF C5 H8 O2
    CM
       3
    CRN 88-12-0
    CMF C6 H9 N O
```

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IC ICM C08G063-695
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ICS C08G063-688; A61K007-06

CC 38-3 (Plastics Fabrication and Uses)

Section cross-reference(s): 35, 62
ST comb polymer hair preps; polyester comb polymer;
polyacrylic acid comb polymer; polysiloxane diol comb polymer;
foam hair comb polymer; styling del hair comb polymer; blend

```
polymer hair prepa
    Polymers, uses
     RL: BUU (Biological use, unclassified); IMF (Industrial
     manufacture); POF (Polymer in formulation); BIOL (Biological
     study); PREP (Preparation); USES (Uses)
        (comb; mixts. of water-dispersible, silicon-modified
       comb polymers and physiol. acceptable asionic
       or amphoteric polymers for use in hair prepns.)
    Polysiloxanes, uses
     RL: BUU (Biological use, unclassified): IMF (Industrial
     manufacture); POF (Polymer in formulation); BIOL (Biological
     study); PREP (Preparation); USES (Uses)
        (diols, reaction products with polyesters and
       poly(acrylic acid); mixts. of water-dispersible,
       silicon-modified comb polymers and physiol.
       acceptable anionic or amphoteric polymers for use in
       hair prepns.)
    Hair preparations
        (mixts. of water-dispersible, silicon-modified comb
       polymers and physiol. acceptable anionic or
        amphoteric polymers for use in hair prepas.)
     Polymer blends
     RL: BUU (Biological use, unclassified); POF (Polymer in
     formulation); BIOL (Biological study); USES (Uses)
        (mixts. of water-dispersible, silicon-modified comb
       polymers and physiol. acceptable amionic or
        amphoteric polymers for use in hair prepms.)
     9003-01-4DP, Poly(acrylic acid), reaction
     products with polyesters and polysiloxane diols
     9003-39-8P, Luviskol K 30 25086-89-9P,
     Luviskol VA 37E 25189-83-79, Luviskol Plus
     300663-44-9DP, 1.4-Cvclohexanedicarboxvlic acid-diethvlene
     glycol-Li 5-sulfoisophthalate-isophthalic acid-1,2-propanediol
     copolymer, reaction products with poly(acrylic acid) and
     polysiloxane diols 306771-64-2DP, reaction products
    with poly(acrylic acid) and polysiloxane diols 306771-67-5DP,
     1.4-Cyclohexanedicarboxylic acid-diethylene glycol-dimethyl sodium
     5-sulfoisophthalate-isophthalic acid-1,2-propanediol copolymer,
     reaction products with poly(acrylic acid) and
    polysiloxane diols
                        306771-71-1DP, 1,4-Cyclohexanedicarboxylic
     acid-1,4-cyclohexanedimethanol-diethylene glycol-dimethyl sodium
     5-sulfoisophthalate-Li 5-sulfoisophthalate-isophthalic
     acid-pentaerythritol-1,2-propanediol copolymer, reaction
     products with poly(acrylic acid) and polysiloxane diols
     306773-13-7DP, Silwet 867, reaction products with
     polvesters and polv(acrylic acid)
     RL: BUU (Biological use, unclassified); IMF (Industrial
     manufacture); POF (Polymer in formulation); BIOL (Biological
     study); PREP (Preparation); USES (Uses)
        (mixts. of water-dispersible, silicon-modified comb
       polymers and physiol. acceptable anionic or
       amphoteric polymers for use in hair prepas.)
     26124-25-4, Vinyl acetate-vinyl
     propionate-N-vinylpyrrolidinone copolymer
                                                 72018-12-3.
     Poly(N-vinylformamide)
     RL: BUU (Biological use, unclassified); POF (Polymer in
     formulation); BIOL (Biological study); USES (Uses)
        (mixts. of water-dispersible, silicon-modified comb
        polymers and physiol. acceptable anionic or
        amphoteric polymers for use in hair prepas.)
OS.CITING REF COUNT:
                        1
                              THERE ARE 1 CAPLUS RECORDS THAT CITE
                               THIS RECORD (1 CITINGS)
REFERENCE COUNT:
                               THERE ARE 2 CITED REFERENCES AVAILABLE
                               FOR THIS RECORD. ALL CITATIONS AVAILABLE
                               IN THE RE FORMAT
```

ACCESSION NUMBER: 2000:368068 HCAPLUS Full-text

DOCUMENT NUMBER: 133:9129

TITLE: Dispersible phospholipid stabilized

microparticles

INVENTOR(S): Parikh, Indu; Mishra, Awadhesh K.; Donga,

Robert; Vachon, Michael G.

RTP Pharma Inc., USA PATENT ASSIGNEE(S): SOURCE: PCT Int. Appl., 19 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1 PATENT INFORMATION:

JP 2002530321

NZ 511792

AU 767154

T

A

B2

20020917

20030829

20031030

|               | TENT         |      | KIN         |     |                 | KIND DATE |      |      | APPLICATION NO. |       |                   |      |     | DATE |              |
|---------------|--------------|------|-------------|-----|-----------------|-----------|------|------|-----------------|-------|-------------------|------|-----|------|--------------|
| WO 2000030616 |              |      | A1 20000602 |     | WO 1999-US27436 |           |      |      |                 | 1999  |                   |      |     |      |              |
|               |              |      |             |     |                 |           |      |      |                 |       |                   |      |     |      | 1119         |
|               | W:           | CU,  | CZ,         | DE, | DK,             | EE,       | ES,  | FI,  | GB,             | GD,   | BR,<br>GE,<br>KZ, | GH,  | GM, | HR,  | HU,          |
|               |              | RU,  |             | SE, | SG,             |           |      |      |                 |       | NO,<br>TR,        |      |     |      |              |
|               | RW:          | CY,  | DE,         | DK, | ES,             | FI,       | FR,  | GB,  | GR,             | IE,   | UG,<br>IT,<br>GW, | LU,  | MC, | NL,  | PT,          |
| 40            | 2349         | TD,  |             |     | Δ1              |           | 2000 | 0602 |                 | C A 1 | 999_              | 2349 | 203 |      |              |
|               |              |      |             |     | ***             |           |      | 0002 |                 |       |                   |      | 200 |      | 1999<br>1119 |
| EΡ            | 1133         | 281  |             |     | A1              |           | 2001 | 0919 |                 |       | :<br>.999-        | 9604 | 98  |      |              |
|               |              |      |             |     |                 |           |      |      |                 |       |                   |      |     |      | 1999<br>1119 |
|               |              | MC,  | PT,         | ΙE, | SI,             | LT,       | LV,  | FI,  | RO              | GR,   | IT,               |      |     | NL,  | SE,          |
| BR            | 9915         | 738  |             |     | A               |           | 2001 | 1002 |                 | BR 1  | 999-              | 1573 | 8   |      | 1999<br>1119 |
| HU            | 2001         | 0050 | 89          |     | A2              |           | 2002 | 0529 |                 | HU 2  |                   | 5089 |     |      | 1999         |
|               |              |      |             |     |                 |           |      |      |                 | <     |                   |      |     |      | 1119         |
|               | 2001<br>2002 |      |             |     |                 |           |      |      |                 | US 1  | 999-              | 4438 | 63  |      | 1999         |
|               |              |      |             |     |                 |           |      |      |                 |       |                   |      |     |      | 1119         |
| EE            | 2001         | 0026 | 9           |     | Α               |           | 2002 | 0815 |                 |       |                   | 269  |     |      |              |

<--

JP 2000-583500

NZ 1999-511792

AU 2000-17375

1999 1119

1999 1119

1999 1119

|                    |      |          |     |              |    | 1999<br>1119 |
|--------------------|------|----------|-----|--------------|----|--------------|
|                    |      |          |     |              |    | 1119         |
|                    |      |          |     | <            |    |              |
| RU 2233654         | C2   | 20040810 | RU  | 2001-116719  |    |              |
|                    |      |          |     |              |    | 1999         |
|                    |      |          |     |              |    | 1119         |
|                    |      |          |     | <            |    |              |
| CN 1287769         | C    | 20061206 |     | 1999-815645  |    |              |
| CN 120//09         | Ç    | 20061206 | CN  | 1999-013043  |    |              |
|                    |      |          |     |              |    | 1999         |
|                    |      |          |     |              |    | 1119         |
|                    |      |          |     | <            |    |              |
| NO 2001002467      | A    | 20010718 | NO  | 2001-2467    |    |              |
|                    |      |          |     |              |    | 2001         |
|                    |      |          |     |              |    | 0518         |
|                    |      |          |     |              |    | 0310         |
|                    |      |          |     | <            |    |              |
| ZA 2001004069      | A    | 20030107 | ZA  | 2001-4069    |    |              |
|                    |      |          |     |              |    | 2001         |
|                    |      |          |     |              |    | 0518         |
|                    |      |          |     | <            |    |              |
| MX 2001004991      | A    | 20030414 |     | 2001-4991    |    |              |
| MA 2001004991      | A    | 20030414 | MA  | 2001-4991    |    |              |
|                    |      |          |     |              |    | 2001         |
|                    |      |          |     |              |    | 0518         |
|                    |      |          |     | <            |    |              |
| BG 105573          | A    | 20020131 | BG  | 2001-105573  |    |              |
|                    |      |          |     |              |    | 2001         |
|                    |      |          |     |              |    | 0607         |
|                    |      |          |     |              |    | 0007         |
|                    |      |          |     | <            |    |              |
| BG 65254           | B1   | 20071031 |     |              |    |              |
| HK 1042856         | Al   | 20070727 | HK  | 2002-104730  |    |              |
|                    |      |          |     |              |    | 2002         |
|                    |      |          |     |              |    | 0625         |
|                    |      |          |     | <            |    | 0023         |
|                    |      |          |     |              |    |              |
| US 2003020694      | 9 A1 | 20031106 | US  | 2003-443772  |    |              |
|                    |      |          |     |              |    | 2003         |
|                    |      |          |     |              |    | 0523         |
|                    |      |          |     | <            |    |              |
| PRIORITY APPLN. IN | ro • |          | 717 | 1998-109202P | P  |              |
| INIONIII ALIBN. IN |      |          | 0.5 | 1770-1072021 |    | 1998         |
|                    |      |          |     |              |    |              |
|                    |      |          |     |              |    | 1120         |
|                    |      |          |     | <            |    |              |
|                    |      |          | US  | 1999-443863  | A1 |              |
|                    |      |          |     |              |    | 1999         |
|                    |      |          |     |              |    | 1119         |
|                    |      |          |     |              |    | 1119         |
|                    |      |          |     | <            |    |              |
|                    |      |          | WO  | 1999-US27436 | W  |              |
|                    |      |          |     |              |    | 1999         |
|                    |      |          |     |              |    | 1119         |
|                    |      |          |     | <            |    |              |
|                    |      |          |     | *            |    |              |

ED Entered STN: 04 Jun 2000

B Rapidly dispersing solid dry therapeutic dosage form comprises a water-insol. compound existing as a nanometer or micrometer particulate solid which is surface stabilized by the presence of at least 1 phospholipid, the particulate solid being dispersed throughout a bulking matrix. When the dosage form is introduced into an aqueous environment the bulking matrix is substantially completely dissolved within <2 min thereby releasing the water insol. particulate solid in an unaggregated and/or unagglomerated state. The matrix is composed of a water-insol substance or therapeutically useful water-insol. or poorly water-soluble compound, a phospholipid and optionally also at least 1 nonionic, anionic, cationic or amphipathic surfactant, together with a matrix or bulking agent and if needed a release agent. The volume weighted mean particle size of the water insol. particle is 55 µm. Thus, a solid dosage form contained Phospholipon 100H 5.6, Tween-80 5.6, fenofibrate 27.8, and mannitol 61.0% by weight

IT 79-10-7D, Acrylic acid, esters, polymers 9003-39-8. PVP

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (dispersible phospholipid stabilized microparticles)

```
10/591,654-306094-EIC SEARCH
RN
     79-10-7 HCAPLUS
CM
    2-Propenoic acid (CA INDEX NAME)
 HO____CH___CH2
     9003-39-8 HCAPLUS
CN
     2-Pyrrolidinone, 1-ethenyl-, homopolymer (CA INDEX NAME)
     CM 1
     CRN 88-12-0
     CMF C6 H9 N O
    ICM A61K009-14
     ICS A61K009-19
CC 63-6 (Pharmaceuticals)
     Surfactants
        (anionic; dispersible phospholipid
        stabilized microparticles)
     50-70-4, Sorbitol, biological studies 50-99-7, Dextrose,
     biological studies 56-81-5, Glycerol, biological studies
     57-50-1, Sucrose, biological studies 57-55-6, Propylene glycol,
     biological studies 63-42-3, Lactose 69-65-8, Mannitol
     69-79-4, Maltose 79-10-7D, Acrylic acid, esters,
     polymers 99-20-7, Trehalose 9003-39-8, PVP 9004-34-6D, Cellulose, derivs., biological studies
                                                          9004-54-0,
     Dextran, biological studies 9004-64-2, Hydroxypropyl cellulose 9004-67-5, Methyl Cellulose 9005-25-8, Starch, biological
     studies 25322-68-3, Polyethylene glycol 37353-59-6,
     Hydroxymethyl Cellulose 49562-28-9, Fenofibrate 59865-13-3,
     Cyclosporine A 84625-61-6, Itraconazole 106392-12-5, Poloxamer
     132703-01-6, Phospholipon 100H
     RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
        (dispersible phospholipid stabilized microparticles)
OS.CITING REF COUNT:
                        8
                               THERE ARE 8 CAPLUS RECORDS THAT CITE
                                THIS RECORD (9 CITINGS)
                                THERE ARE 2 CITED REFERENCES AVAILABLE
REFERENCE COUNT:
                         2
                                FOR THIS RECORD. ALL CITATIONS AVAILABLE
                                IN THE RE FORMAT
L138 ANSWER 11 OF 22 HCAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER:
                         1999:752945 HCAPLUS Full-text
DOCUMENT NUMBER:
                          131:352874
TITLE:
                         Water-soluble granulate of phthalocyanine
                         compounds, its preparation and use
INVENTOR(S):
                        Kvita, Petr; Dreyer, Pierre
                       Ciba Specialty Chemicals Holding Inc., Switz.
PATENT ASSIGNEE(S):
SOURCE:
                         Eur. Pat. Appl., 34 pp.
                         CODEN: EPXXDW
DOCUMENT TYPE:
                         Patent
```

German

LANGUAGE:

FAMILY ACC. NUM. COUNT: 1

#### PATENT INFORMATION:

| PATENT NO.          | KIND   | DATE      |                             |   |
|---------------------|--------|-----------|-----------------------------|---|
| EP 959123           | A1     | 19991124  | EP 1999-810412              |   |
|                     |        |           | 0510<br><                   |   |
| EP 959123           | B1     | 20040728  |                             |   |
|                     |        |           | GB, GR, IT, LI, LU, NL, SE, |   |
| MC, PT, IE,         | SI, LI | , LV, FI, | RO                          |   |
| AT 272104           | T      | 20040815  | AT 1999-810412              |   |
|                     |        |           | 1999                        |   |
|                     |        |           | 0510                        | , |
|                     |        |           | <                           |   |
| ES 2226324          | T3     | 20050316  | ES 1999-810412              |   |
|                     |        |           | 0510                        |   |
|                     |        |           | <                           |   |
| US 6291412          | B1     | 20010918  | US 1999-312228              |   |
|                     |        |           | 1999                        |   |
|                     |        |           | 0514                        |   |
|                     |        |           | <                           |   |
| CN 1236006          | A      | 19991124  | CN 1999-108092              |   |
|                     |        |           | 1999                        |   |
|                     |        |           | 0517                        |   |
| CN 1127563          |        | 20031112  | <                           |   |
| AU 9929074          |        |           | AU 1999-29074               |   |
| A0 3323014          | 22     | 17771123  | 1999                        |   |
|                     |        |           | 0517                        |   |
|                     |        |           | <                           |   |
| AU 756263           | B2     | 20030109  |                             |   |
| IN 1999MA00562      | A      | 20061124  |                             |   |
|                     |        |           | 1999                        |   |
|                     |        |           | 0517                        |   |
| PP 0000001          |        | 20000110  | <<br>BR 1999-2091           |   |
| BR 9902091          | A      | 20000118  | BR 1999-2091<br>1999        |   |
|                     |        |           | 0518                        |   |
|                     |        |           | <                           |   |
| ORITY APPLN. INFO.: |        |           | EP 1998-810459 A            |   |
|                     |        |           | 1998                        | , |
|                     |        |           | 0518                        |   |
|                     |        |           | <                           |   |

OTHER SOURCE(S): MARPAT 131:352874

ED Entered STN: 26 Nov 1999

AB The fast-dissolving granules, useful as photobleaching activators in laundry detergents, comprise (1) a water-soluble phthalocyanine 2-50, (2) an anionic dispersant 10-95, (3) water-soluble organic polymers 0-25, (4) other additives 0-10, and (5) water 3-15 weights. Thus, 725 g of a 20% aqueous solution of the Na salt of sulfonated Zn phthalocyanine (3-4 S03Na groups/mol.) was mixed thoroughly with 3010 g 40% aqueous solution of naphthalenesulfonic acid-HCf0 condensate for 1 h at 25°, then spay-dried with 195° air to give free-flowing 50-µm granules with residual H2O content 7% and phthalocyanine content 10%.

IT 903-04-7, Sodium polyacrylate 9003-39-8
25085-34-1 25086-89-9 30581-59-0
54193-36-1, Sodium polymethacrylate 55989-05-4
, Ethyl acrylate-methacrylic acid-methyl methacrylate copolymer ammonium salt 102972-64-9,
(Dimethylamino)ethyl methacrylate-vinylcaprolactam

-N-vinyl-2-pyrrolidinone copolymer 131954-48-8 132230-28-5, N-[3-(Dimethylamino)propyl]methacrylamide-Nvinyl-2-pyrrolidinone copolymer 158830-23-0

RL: MOA (Modifier or additive use); USES (Uses)

```
(water-soluble granulate of phthalocyanine compds. as detergent
       additive)
RN 9003-04-7 HCAPLUS
CN 2-Propenoic acid, homopolymer, sodium salt (CA INDEX NAME)
    CM 1
    CRN 9003-01-4
    CMF (C3 H4 O2)x
    CCI PMS
         CM
             2
         CRN 79-10-7
         CMF C3 H4 O2
 но_Ё_сн__сн₂
RN 9003-39-8 HCAPLUS
CN
   2-Pyrrolidinone, 1-ethenyl-, homopolymer (CA INDEX NAME)
    CM 1
    CRN 88-12-0
    CMF C6 H9 N O
RN 25085-34-1 HCAPLUS
CN 2-Propenoic acid, polymer with ethenylbenzene (CA INDEX NAME)
    CM 1
    CRN 100-42-5
    CMF C8 H8
 H2C___CH_Ph
    CM 2
    CRN 79-10-7
    CMF C3 H4 O2
 но_ Е_сн__сн2
```

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RN 25086-89-9 HCAPLUS
CN Acetic acid ethenyl ester, polymer with 1-ethenyl-2-pyrrolidinone
    (CA INDEX NAME)
    CM 1
    CRN 108-05-4
    CMF C4 H6 O2
 Aco_CH__CH2
    CM 2
    CRN 88-12-0
    CMF C6 H9 N O
RN 30581-59-0 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, 2-(dimethylamino)ethyl ester, polymer
    with 1-ethenyl-2-pyrrolidinone (CA INDEX NAME)
    CM 1
    CRN 2867-47-2
    CMF C8 H15 N O2
 Me2N_CH2_CH2_O_U_U_Me
    CM 2
    CRN 88-12-0
    CMF C6 H9 N O
```

RN 54193-36-1 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, homopolymer, sodium salt (CA INDEX

```
NAME)
    CM 1
    CRN 25087-26-7
CMF (C4 H6 O2)x
CCI PMS
         CM 2
         CRN 79-41-4
         CMF C4 H6 O2
 Me_U_CO2H
RN 55989-05-4 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, polymer with ethyl 2-propenoate and
    methyl 2-methyl-2-propenoate, ammonium salt (CA INDEX NAME)
    CM 1
    CRN 25133-97-5
    CMF (C5 H8 O2 , C5 H8 O2 , C4 H6 O2)x
    CCI PMS
         CM 2
         CRN 140-88-5
         CMF C5 H8 O2
 Eto_U_CH__CH2
         CM 3
         CRN 80-62-6
         CMF C5 H8 O2
 H2C O
         CM 4
         CRN 79-41-4
         CMF C4 H6 O2
 ме_Ц_со2н
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102972-64-5 HCAPLUS
    2-Propenoic acid, 2-methyl-, 2-(dimethylamino)ethyl ester, polymer
CN
    with 1-ethenylhexahydro-2H-azepin-2-one and
    1-ethenyl-2-pyrrolidinone (CA INDEX NAME)
    CM 1
    CRN 2867-47-2
    CMF C8 H15 N O2
 Me 2N _ CH2 _ CH2 _ O
    CM 2
    CRN 2235-00-9
    CMF C8 H13 N O
    CM 3
    CRN 88-12-0
    CMF C6 H9 N O
   131954-48-8 HCAPLUS
RN
CN 1-Propanaminium, N,N,N-trimethyl-3-[(2-methyl-1-oxo-2-propen-1-
    yl)amino]-, chloride (1:1), polymer with 1-ethenyl-2-pyrrolidinone
       (CA INDEX NAME)
    CM 1
    CRN 51410-72-1
    CMF C10 H21 N2 O . C1
```

CRN 3845-76-9 CMF C8 H16 N2 O

CM 2

CRN 88-12-0 CMF C6 H9 N O



ICM C11D003-00

ICS C11D003-39; C11D003-395

46-5 (Surface Active Agents and Detergents)

TT Dispersing agents

(amionic; in water-soluble granulate of phthalocyanine compds. as detergent additive)

Drying

(fluidized-bed; in preparation of water-soluble granulate of phthalocyanine compds. as detergent additive)

Drying

(spray; in preparation of water-soluble granulate of phthalocyanine compds. as detergent additive)

92-52-4D, Biphenvl, chloromethylated, condensation

products with sulfonated naphthalene 5138-18-1D, dialkyl esters, sodium selt 8061-51-6, Sodium ligninsulfonate 9017-33-8, Formaldehyde-naphthalenesulfonic acid copolymer 25155-19-5D, Naphthalenesulfonic acid, alkyl derivs., sodium

58226-28-1 RL: MOA (Modifier or additive use); USES (Uses)

(dispersant; water-soluble granulate of phthalocyanine compds. as detergent additive)

110-16-7D, Maleic acid, polymers with unsatd. hydrocarbons, sodium salt 9002-89-5, Poly(vinyl alcohol) 9003-04-7

, Sodium polyacrylate 9003-05-8 9003-20-7D, Poly(vinyl acetate), saponified 9003-39-8 9004-32-4 24980-41-4.

Polycaprolactone 25085-34-1 25086-89-9 25248-42-4. Polycaprolactone 30581-59-0 37353-59-6.

Hydroxymethyl cellulose 54193-36-1, Sodium

polymethacrylate \$5989-05-4, Ethyl

acrylate-methacrylic acid-methyl methacrylate copolymer ammonium 102972-64-5, (Dimethylamino)ethyl

methacrylate-vinylcaprolactam-N-vinyl-2-pyrrolidinone copolymer 131954-48-8 132230-28-5,

N-[3-(Dimethylamino)propyl]methacrylamide-N-vinyl-2-pyrrolidinone

copolymer 158830-23-0 RL: MOA (Modifier or additive use); USES (Uses)

(water-soluble granulate of phthalocyanine compds. as detergent additive)

14320-04-8D, Zinc phthalocyanine, sulfonated, sodium salt 84370-49-0D, sulfonated, sodium salt

RL: PEP (Physical, engineering or chemical process); TEM (Technical or engineered material use); PROC (Process); USES

(water-soluble granulate of phthalocyanine compds. as detergent additive)

OS.CITING REF COUNT: 3 THERE ARE 3 CAPLUS RECORDS THAT CITE

THIS RECORD (3 CITINGS)

REFERENCE COUNT: THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE

IN THE RE FORMAT

L138 ANSWER 12 OF 22 HCAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 1998:779503 HCAPLUS Full-text DOCUMENT NUMBER: 130:83894

TITLE: Water-dispersible lubricants for

plastic working of metals INVENTOR(S): Sakai, Kenji; Goto, Koichi; Aizawa, Yuji

PATENT ASSIGNEE(S): Kyodo Oil and Fats Co., Ltd., Japan Jpn. Kokai Tokkyo Koho, 7 pp.

SOURCE: CODEN: JKXXAF

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO.            | KIND | DATE     | APPLICATION NO. | DATE |
|-----------------------|------|----------|-----------------|------|
|                       |      |          |                 |      |
|                       |      |          |                 |      |
| JP 10316989           | A    | 19981202 | JP 1998-67986   |      |
|                       |      |          |                 | 1998 |
|                       |      |          |                 | 0318 |
|                       |      |          | <               |      |
| PRIORITY APPLN. INFO. | :    |          | JP 1997-64031 F | 4    |
|                       |      |          |                 | 1997 |
|                       |      |          |                 | 0318 |

Entered STN: 14 Dec 1998

AB Water-dispezsible lubricants for plastic working of metals are prepared by dispezsing (a) inorg. solid lubricant (S) in a base oil (O) containing ≥l of highly basic alkali and alkaline earth metal saits of organic acids to form an S/O-type dispersion and further dispersing the dispersion in water using surfactants to give S/O/W-type waterdispersible lubricants.

9003-39-8, Polyvinyl pyrrolidone

RL: MOA (Modifier or additive use); USES (Uses) (water-dispersible lubricants for plastic working of metals)

RN 9003-39-8 HCAPLUS

CN 2-Pyrrolidinone, 1-ethenyl-, homopolymer (CA INDEX NAME)

CM 1 CRN 88-12-0 CMF C6 H9 N O

IC ICM C10M173-00

ICS C10M103-00; C10M103-06; C10M159-20

51-8 (Fossil Fuels, Derivatives, and Related Products)

Section cross-reference(s): 55 ST lubricant water dispersion plastic working metal

Fats and Glyceridic oils, uses

RL: TEM (Technical or engineered material use); USES (Uses) (animal; water-dispersible lubricants for plastic

```
working of metals)
   Surfactants
        (anionic; water-dispersible lubricants for
       plastic working of metals)
     Carboxylic acids, uses
     Sulfonic acids, uses
     RL: NUU (Other use, unclassified); TEM (Technical or engineered
     material use); USES (Uses)
        (calcium selts, overbased; water-dispersible
        lubricants for plastic working of metals)
     Lubricating oils
     Lubricating oils
        (metalworking, water-based emulsions; water-
       dispersible lubricants for plastic working of metals)
    Surfactants
        (nonionic, ethers and esters; water-dispersible
        lubricants for plastic working of metals)
     Sulfonic acids, uses
     RL: NUU (Other use, unclassified); TEM (Technical or engineered
     material use); USES (Uses)
        (sodium salts, surfactants; water-dispersible
       lubricants for plastic working of metals)
    Bentonite, uses
     RL: MOA (Modifier or additive use); TEM (Technical or engineered
     material use); USES (Uses)
        (surface-treated, solid lubricant; water-dispersible
        lubricants for plastic working of metals)
     Fats and Glyceridic oils, uses
     RL: TEM (Technical or engineered material use); USES (Uses)
        (vegetable; water-dispersible lubricants for plastic
        working of metals)
     4719-04-4, Grotan BK
                            7779-27-3, Vancide TH
     RL: MOA (Modifier or additive use); USES (Uses)
        (antiseptics; water-dispersible lubricants for
        plastic working of metals)
тт
     70024-57-6, Trimethylolpropane oleate
     RL: TEM (Technical or engineered material use); USES (Uses)
        (base oil; water-dispersible lubricants for plastic
        working of metals)
     10043-11-5, Boron nitride, uses
     RL: MOA (Modifier or additive use); TEM (Technical or engineered
     material use): USES (Uses)
        (solid lubricant; water-dispersible lubricants for
       plastic working of metals)
     471-34-1, Calcium carbonate, uses 12174-53-7, Sericite
     RL: MOA (Modifier or additive use); TEM (Technical or engineered
     material use); USES (Uses)
        (surface-treated, solid lubricant; water-dispersible
        lubricants for plastic working of metals)
     143-19-1, Sodium oleate 9016-45-9
                                          9062-90-2, Polyethylene
     glycol sorbitan oleate
                            218619-62-6
     RL: NUU (Other use, unclassified); TEM (Technical or engineered
     material use); USES (Uses)
        (surfactant; water-dispersible lubricants for plastic
       working of metals)
    68-04-2, Sodium citrate
                             108-30-5D, Succinic anhydride, alkenyl
     derivs. 9003~39~8, Polyvinyl pyrrolidone 22207-58-5
     23311-84-4, Sodium adipate 51305-33-0, Sodium trimellitate
     175834-20-5, Bryton C 400 187112-05-6, ADX 410J
                                                        187112-34-1,
     Lubrizol 5341 218903-10-7, Lubrizol 5183A
     RL: MOA (Modifier or additive use): USES (Uses)
        (water-dispersible lubricants for plastic working of
    218903-67-4, Rheolate 350
     RL: MOA (Modifier or additive use); TEM (Technical or engineered
     material use); USES (Uses)
```

(water-dispersible lubricants for plastic working of

10/591,654-306094-EIC SEARCH metals) 108-95-2D, Phenol, derivs., calcium salts, overbased, uses RL: NUU (Other use, unclassified); TEM (Technical or engineered material use); USES (Uses) (water-dispersible lubricants for plastic working of metals) TТ 77-99-6D, Trimethylolpropane, fatty acid esters 115-77-5D, Pentaerythritol, fatty acid esters RL: TEM (Technical or engineered material use): USES (Uses) (water-dispersible lubricants for plastic working of metals) OS.CITING REF COUNT: 3 THERE ARE 3 CAPLUS RECORDS THAT CITE THIS RECORD (3 CITINGS) L138 ANSWER 13 OF 22 HCAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 1996:357037 HCAPLUS Full-text DOCUMENT NUMBER: 125:41422 ORIGINAL REFERENCE NO.: 125:7873a,7876a Hair preparations containing TITLE: water-insoluble polyurethanes and water-soluble polymers INVENTOR(S): Emmerling, Winfried; Hofman, Hans-Peter; Schieferstein, Ludwig PATENT ASSIGNEE(S): Henkel KGaA, Germany SOURCE: Ger. Offen., 6 pp. CODEN: GWXXBX DOCUMENT TYPE: Patent LANGUAGE: German FAMILY ACC. NUM. COUNT: 1 PATENT INFORMATION: PATENT NO. KIND DATE APPLICATION NO. DATE ----DE 4438846 A1 19960509 DE 1994-4438846 1994 1102 WO 9614049 A1 19960517 WO 1995-EP4160 1995 1024 W: CA, CN, CZ, FI, HU, JP, KR, PL, RU, SI, SK, US RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT. SE EP 789549 A1 19970820 EP 1995-937829 1995 1024 EP 789549 В1 20010110 R: AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, NL, PT, SE AT 198543 T 20010115 AT 1995-937829 1995 1024 <---ES 2153501 T3 20010301 ES 1995-937829 1995 1024 <--PT 789549 T 20010430 PT 1995-937829

T3 20010531

GR 3035400

GR 2001-400228

1995 1024

2001 0209

PRIORITY APPLN. INFO.: DE 1994-4438846 1994 1102 WO 1995-EP4160 1995 1024 <--ED Entered STN: 20 Jun 1996 AB Water-insol. polyurethanes, as film-forming components in hair prepas., are more readily washed out of the hair if combined with water-soluble polymers. The watersoluble polymer may be nonionic, anionic, amphoteric, or zwitterionic. Thus, a pump spray contained Alberdingk U500 (40% aqueous dispersion of anionic polyetherpolyurethane) 10.0, Luviskol VA64 10.0, panthenol 0.1, perfume oil 0.15, Cremophor RH40 0.4, and water to 100 weight parts. 9003-39-8, PVP 25086-89-9, Luviskol VA 64 67016-70-0, Amphomer LV 71 RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses) (hair prepns. containing water-insol. polyurethanes and water-soluble polymers) 9003-39-8 HCAPLUS RN CN 2-Pyrrolidinone, 1-ethenyl-, homopolymer (CA INDEX NAME) CM 1 CRN 88-12-0 CMF C6 H9 N O 25086-89-9 HCAPLUS CN Acetic acid ethenyl ester, polymer with 1-ethenyl-2-pyrrolidinone (CA INDEX NAME) CM 1 CRN 108-05-4 CMF C4 H6 O2 Acom CH \_\_\_ CH2 CM 2 CRN 88-12-0 CMF C6 H9 N O



67016-70-0 HCAPLUS

 $\texttt{CN} \quad \ \ 2-\texttt{Propenoic acid, 2-methyl-, 2-[(1,1-\texttt{dimethylethyl})\,\texttt{amino}]ethyl}$ ester, polymer with 2-hydroxypropyl 2-methyl-2-propenoate, methyl 2-methyl-2-propenoate, 2-propenoic acid and N-(1,1,3,3-tetramethylbutyl)-2-propenamide (CA INDEX NAME)

CM 1

CRN 4223-03-4

CMF C11 H21 N O

CM 2

CRN 3775-90-4 CMF C10 H19 N O2

CM 3

CRN 923-26-2

CMF C7 H12 O3

CM 4

CRN 80-62-6 CMF C5 H8 O2



```
CM 5
    CRN 79-10-7
     CMF C3 H4 O2
 HO_U_CH_CHO
   ICM A61K007-08
     ICS A61K007-11
ICA C08L075-04; C08L039-06
     62-3 (Essential Oils and Cosmetics)
    Section cross-reference(s): 38
    hair propn polyurethane Luviskol; polymer water soluble
    hair prepn; urethane polymer Luviskol hair prepn
    Hair preparations
        (hair prepns. containing water-insol. polyurethanes and
        water-soluble polymers)
     Urethane polymers
     RL: BUU (Biological use, unclassified); REM (Removal or disposal);
     BIOL (Biological study); PROC (Process); USES (Uses)
        (hair prepns. containing water-insol. polyurethanes and
       water-soluble polymers)
    Zwitterionic compounds
     RL: BUU (Biological use, unclassified); BIOL (Biological study);
     USES (Uses)
        (polymers; hair prepns. containing water-insol.
       polyurethanes and water-soluble polymers)
    Polymers
     RL: BUU (Biological use, unclassified); BIOL (Biological study);
     USES (Uses)
        (water-soluble; hair prepns. containing water-insol.
        polyurethanes and water-soluble polymers)
     Polvelectrolytes
        (amphoteric, hair prepns. containing water-insol.
        polyurethanes and water-soluble polymers)
TT
     Polyelectrolytes
        (anionic, hair prepns, containing water-insol.
       polyurethanes and water-soluble polymers)
     557-75-5, Vinyl alcohol, biological studies
     RL: BUU (Biological use, unclassified); BIOL (Biological study);
     USES (Uses)
        (esters, polymers with vinylpyrrolidone; hair prepns.
        containing water-insol. polyurethanes and water-soluble polymers)
     88-12-0D, polymers with vinyl esters 9003-39-8, PVP
     25086-89-9, Luviskol VA 64
                                67016-70-0.
     Amphomer LV 71
     RL: BUU (Biological use, unclassified); BIOL (Biological study);
     USES (Uses)
        (hair prepss. containing water-insol. polyurethanes and
       water-soluble polymers)
     177772-07-5, Alberdingk U 500
     RL: BUU (Biological use, unclassified); REM (Removal or disposal);
     BIOL (Biological study); PROC (Process); USES (Uses)
        (hair prepns, containing water-insol, polyurethanes and
        water-soluble polymers)
OS.CITING REF COUNT:
                               THERE ARE 3 CAPLUS RECORDS THAT CITE
```

THIS RECORD (3 CITINGS)

L138 ANSWER 14 OF 22 HCAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 1994:307075 HCAPLUS Full-text DOCUMENT NUMBER: 120:307075 ORIGINAL REFERENCE NO.: 120:53877a,53880a TITLE: Hair conditioning shampoos containing anionic surfactants and cationic polymers INVENTOR(S): Reich, Charles; Cheng, Wei Ming; Robbins, Clarence R.; Patel, Amrit Colgate-Palmolive Co., USA

PATENT ASSIGNEE(S): SOURCE: PCT Int. Appl., 19 pp. CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE

P

|      | Y A  | E:<br>ACC. I<br>INFORI |                   |            |                   | Eng.       | lish       |              |            |            |          |                                       |            |            |           |    |              |
|------|------|------------------------|-------------------|------------|-------------------|------------|------------|--------------|------------|------------|----------|---------------------------------------|------------|------------|-----------|----|--------------|
|      |      | ENT                    |                   |            |                   | KIN        |            | DATE         |            |            |          | LICAT                                 |            |            |           |    | DATE         |
|      |      | 9406                   |                   |            |                   | A1         |            | 1994         | 0331       | 1          |          | 1993-                                 | US88:      | 23         |           |    | 1993<br>0922 |
|      |      |                        | MG,<br>AT,<br>PT, | MN,<br>BE, | MW,<br>CH,<br>BF, | NO,<br>DE, | NZ,<br>DK, | PL,<br>ES,   | PT,<br>FR, | RO,<br>GB, | RU<br>GR | <<br>, JP,<br>, SD,<br>, IE,<br>, GN, | SK,<br>IT, | UA,<br>LU, | VN<br>MC, | NL | ,            |
|      | ZA   | 9306                   |                   | 10         |                   | A          |            | 1995         | 0320       | :          |          | 1993-                                 | 6926       |            |           |    | 1993<br>0920 |
|      | AU   | 9349                   | 285               |            |                   | A          |            | 1994         | 0412       | i          |          | <<br>1993-                            | 4928       | 5          |           |    | 1993<br>0922 |
|      |      | 6743<br>1087           |                   |            |                   | B2<br>A    |            | 1996<br>1994 |            |            |          | <<br>1993-                            | 1178       | 82         |           |    | 1993         |
|      | EP   | 6619                   | 62                |            |                   | A1         |            | 1995         | 0712       | 1          |          | <<br>1993-                            | 9216       | 63         |           |    | 1993         |
|      |      | R:                     | AT,               | BE,        | CH,               | DE,        | DK,        | ES,          | FR,        | GB,        |          | <                                     | IT,        | LI,        | NL,       |    | 0922         |
| PRIO | RITY | APP:                   | LN.               | INFO       | . :               |            |            |              |            | 1          |          | 1992-                                 | 9485       | 17         | i         |    | 1992<br>0922 |
|      |      |                        |                   |            |                   |            |            |              |            | 1          | US       | <<br>1993-                            | 1184       | 12         | i         |    | 1993<br>0913 |
|      |      |                        |                   |            |                   |            |            |              |            | 1          |          | <<br>1993-                            | US88:      | 23         | 1         |    | 1993<br>0922 |
|      |      |                        |                   |            |                   |            |            |              |            |            |          | <                                     |            |            |           |    |              |

Entered STN: 11 Jun 1994

A hair conditioning shampoo in stable emulsion or suspension form comprises (1) 5-40% of ≥1 anionic surfactant, (2) 0.01-5% of a viny1-type cationic polymer having a hair conditioning effect and a charge d. 150-400, (3) 0.1-10% of ≥1 dispersed water-insol. hair conditioning agent, (4) 0.5-10% of ≥1 dispersing agent to stabilize the emulsion or suspension, and (5) the remainder water. For example, a shampoo contained ammonium lauryl sulfate 7.5, Na deceth-3-sulfate 7.5, cocodiethanolamide 4.0, di-Me siloxanes

```
4.0, Polymer JR-400 0.3, guar hydroxypropyltrimonium chloride 0.7, distearyldimonium
     chloride 0.5, C20-40 alc. 3.0, NaH2PO4 0.2, perfumes 0.6, preservatives 0.5, Na cumene
     sulfonate 1.5, and water to 100%.
IT 25136-75-8, Acrylic
    acid-acrylamide-diallyldimethylammonium chloride copolymer
     95144-24-4
    RL: BIOL (Biological study)
        (conditioning shampoos containing)
   25136-75-8 HCAPLUS
RM
   2-Propen-1-aminium, N,N-dimethyl-N-2-propen-1-yl-, chloride (1:1),
    polymer with 2-propenamide and 2-propenoic acid (CA INDEX NAME)
    CM
    CRN 7398-69-8
CMF C8 H16 N . C1
             01-
    CM 2
    CRN 79-10-7
    CMF C3 H4 O2
    CM 3
    CRN 79-06-1
CMF C3 H5 N O
 HON_U_CH_CHO
   95144-24-4 HCAPLUS
CN
     1H-Imidazolium, 1-ethenyl-3-methyl-, chloride (1:1), polymer with
     1-ethenyl-2-pyrrolidinone (CA INDEX NAME)
    CM 1
    CRN 13474-25-4
```

CMF C6 H9 N2 . C1

```
CM 2
     CRN 88-12-0
     CMF C6 H9 N O
IC ICM A61K007-06
     ICS A61K007-50
CC
     62-3 (Essential Oils and Cosmetics)
TT
   Shampoos
       (conditioning, amionic surfactants and cationic
        polymers and conditioning agents and dispersing
        agents in)
     25136-75-8, Acrylic
     acid-acrylamide-diallyldimethylammonium chloride copolymer
     26590-05-6, Acrylamide-dimethyldiallyl ammonium chloride copolymer
     95144-24-4
     RL: BIOL (Biological study)
        (conditioning shampoos containing)
OS.CITING REF COUNT: 18 THERE ARE 18 CAPLUS RECORDS THAT CITE
                              THIS RECORD (18 CITINGS)
REFERENCE COUNT:
                         3
                              THERE ARE 3 CITED REFERENCES AVAILABLE
                               FOR THIS RECORD. ALL CITATIONS AVAILABLE
                              IN THE RE FORMAT
L138 ANSWER 15 OF 22 HCAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1994:137317 HCAPLUS <u>Full-text</u>
DOCUMENT NUMBER: 120:137317
ORIGINAL REFERENCE NO.: 120:24161a,24164a
TITLE:
                        Water-thinned amionic pigment
                        dispersions
INVENTOR(S):
                        Tsunoda, Minoru; Harakawa, Hiromi; Inoe,
                        Yutaka
PATENT ASSIGNEE(S): Kansai Paint Co Ltd, Japan
SOURCE:
                        Jpn. Kokai Tokkyo Koho, 7 pp.
                        CODEN: JKXXAF
DOCUMENT TYPE:
                        Patent
LANGUAGE:
                        Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:
```

KIND DATE APPLICATION NO. PATENT NO. DATE

```
JP 05222335
                                19930831
                                           JP 1992-59584
                                                                   1992
                                                                   0213
    JP 3061926
                         B2
                                20000710
PRIORITY APPLN. INFO.:
                                           .TD 1992-59584
                                                                   1992
                                                                   0213
    Entered STN: 19 Mar 1994
ED
AB
     The title dispersions, showing good storage stability and giving glossy coatings,
     comprise pigments and anionic dispersants prepared by polymerizing vinyl monomers
     containing carboxy, basic, polyoxyalkylene, and C≥8 alkyl groups, neutralizing, and
     mixing with water. A mixture of 2-ethylhexyl methacrylate 20, N-vinylpyrrolidone 15,
     acrylic acid 6, H2C:CMeCO2C2H4O(COC5H10O)6H 25, Blemmer AE 350 10, Me methacrylate 10,
     styrene 16, and AIBN 2 parts was added dropwise to 100 parts butyl Cellosolve at 120°,
     heated at 120° with addition of AIBN, and neutralized with triethanolamine to give a
     15% aqueous copolymer (I) solution An aqueous dispersion containing 10 parts I and 100
     parts R 602 (TiO2), showing good storage stability, was mixed (220 parts) with 100
     parts clear coat composition, coated on glass, and heated at 140° to give a coating
     with gloss 93.7%.
     153314-57-9P
     RL: PREP (Preparation)
        (preparation of, as dispersants for pigments, for glossy
       coatings)
RM
     153314-57-9 HCAPLUS
CN
     2-Propenoic acid, 2-methyl-, methyl ester, polymer with
     ethenylbenzene, 1-ethenyl-2-pyrrolidinone,
     α-(2-methyl-1-oxo-2-propenyl)-ω-hydroxypoly(oxy-1,2-
     ethanediyl), \alpha-[2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl]-
     @-hydroxypoly[oxy(1-oxo-1,6-hexanediyl)] and 2-propenoic
     acid, compd. with 2.2',2''-nitrilotris[ethanol] (9CI) (CA INDEX
    NAME)
    CM 1
    CRN 102-71-6
    CMF C6 H15 N O3
             CH2-CH2-OH
 HO_CH2_CH2_N_CH2_CH2_OH
    CM 2
     CMF (C8 H8 . (C6 H10 O2)n C6 H10 O3 . C6 H9 N O . C5 H8 O2 . C3
          H4 O2 . (C2 H4 O)n C4 H6 O2)x
    CCI PMS
             3
         CM
         CRN 81984-60-3
         CMF (C6 H10 O2)n C6 H10 O3
         CCI PMS
```

CRN 79-10-7 CMF C3 H4 O2

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но_ 0_ сн_ сн2
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IC ICM C09D133-02

ICS C09C003-10; C09D017-00; C09D139-00
C 42-10 (Coatings, Inks, and Related Products)

Section cross-reference(s): 35, 46

IT Dispersing agents

(anionic, acrylic polymers, for pigments,

for glossy coatings)

Coating materials

(glossy, storage-stable, aqueous dispersions, containing pigments and anionic acrylic polymer

dispersants) 153314-57-9P

RL: PREP (Preparation)

(preparation of, as dispersants for pigments, for glossy

L138 ANSWER 16 OF 22 HCAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NOWBER: 1992:107781 HCAPLUS Full-text DOCUMENT NUMBER: 116:107781

ORIGINAL REFERENCE NO.: 116:18255a,18258a

TITLE: Microencapsulation of hydrophobic materials

with aminoplasts
INVENTOR(S): Masuda, Toshiaki; Fujie, Koji

PATENT ASSIGNEE(S): Matsumoto Yushi-Seiyaku Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.
CODEN: JKXXAF

DOCUMENT TYPE: Patent
LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1 PATENT INFORMATION:

|     | PATENT NO.          | KIND | DATE     | APPLICATION NO. | DATE |
|-----|---------------------|------|----------|-----------------|------|
|     |                     |      |          |                 |      |
|     |                     |      |          |                 |      |
|     | JP 03238038         | A    | 19911023 | JP 1990-34774   |      |
|     |                     |      |          |                 | 1990 |
|     |                     |      |          |                 |      |
|     |                     |      |          |                 | 0215 |
|     |                     |      |          | <               |      |
| PRI | ORITY APPLN. INFO.: |      |          | JP 1990-34774   |      |
|     |                     |      |          |                 | 1990 |
|     |                     |      |          |                 | 0215 |
|     |                     |      |          |                 |      |

ED Entered STN: 20 Mar 1992

AB The title process can be carried out without agglomeration, thickening, or foaming, in the presence of anionic polyelectrolytes comprising vimplyprrolidone (I), auß-ethylenically unsatd. carboxylic acids, and phosphoric acid group-containing monomers and/or sulfo group-containing monomers. I 20, acrylic acid 60, and Phosmer PE 20 parts were polymerized in the presence of K25208 in water, and the polymerization mixture adjusted to pH 4.5 with 20% aqueous NaOH to give a 20%-solida anionic polyelectrolyte solution at jasmine perfume was emulsified in water using the above polyelectrolyte solution and microencapsulated by melamine resin.

<--

IT 139163-03-4P 139163-04-5P

RL: PREP (Preparation) (manufacture of, for dispersants for hydrophobic materials for microencapsulation)

RN 139163-03-4 HCAPLUS

CN 2-Propenoic acid, polymer with 1-ethenyl-2-pyrrolidinone and  $\alpha$ -(2-methyl-1-oxo-2-propenyl)- $\omega$ -(phosphonoxy)poly(oxy-1,2-ethanediyl) (9CI) (CA INDEX INME)

```
10/591,654-306094-EIC SEARCH
    CM 1
    CRN 35705-94-3
    CMF (C2 H4 O)n C4 H7 O5 P
CCI PMS
             O_CH2_CH2___OPO3H2
    CM 2
    CRN 88-12-0
    CMF C6 H9 N O
    CM 3
    CRN 79-10-7
    CMF C3 H4 O2
   139163-04-5 HCAPLUS
CN 2-Propenoic acid, polymer with 1-ethenyl-2-pyrrolidinone,
    2-methyl-2-[(1-oxo-2-propenyl)amino]-1-propanesulfonic acid and
    \alpha-(2-methyl-1-oxo-2-propenyl)-\omega-(phosphonooxy)poly(oxy-
    1,2-ethanediyl) (9CI) (CA INDEX NAME)
    CM 1
    CRN 35705-94-3
    CMF (C2 H4 O)n C4 H7 O5 P
CCI PMS
          O_CH2_CH2______OPO3H2
```

CM 2

```
CRN 15214-89-8
CMF C7 H13 N O4 S
```

CM 3

CRN 88-12-0 CMF C6 H9 N O



CM 4

CRN 79-10-7 CMF C3 H4 O2

IC ICM B01J013-18

CC 38-2 (Plastics Fabrication and Uses)

Section cross-reference(s): 62

ET perfume microencapsulation aminoplast; melamine resin microencapsulation perfume; anionic polyelectrolyte dispersant perfume; vinylpyrrolidone copolymer anionic

polyelectrolyte; acrylic acid copolymer anionic polyelectrolyte; polyethylene glycol phosphate acrylate copolymer;

dispersant anionic polyelectrolyte
IT Dispersing agents

(anionic polyelectrolytes, for hydrophobic perfumes)

IT Epoxy resins, miscellaneous RL: MSC (Miscellaneous)

(microencapsulation of liquid, with aminoplasts, amionic polyelectrolyte dispensants in)

Polyelectrolytes

(anionic, dispersants, in

microencapsulation of hydrophobic materials with aminoplasts)

IT 58206-31-8, Scripset 520 RL: USES (Uses)

(dispersants containing anionic

polyelectrolytes and, for hydrophobic materials for microencapsulation by aminoplasts)

139163-03-4P 139163-04-5P

```
RL: PREP (Preparation)
        (manufacture of, for dispersants for hydrophobic materials
       for microencapsulation)
   9003-08-1 9011-05-6
    RL: USES (Uses)
        (microencapsulation by, of hydrophobic materials,
       anionic polyelectrolyte dispersants in)
   1249-97-4 1552-42-7, Crystal Violet Lactone 25068-38-6,
    Epikote 828
     RL: PROC (Process)
        (microencapsulation of, by aminoplasts, amionic
       polyelectrolyte dispersants in)
L138 ANSWER 17 OF 22 HCAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1985:473673 HCAPLUS Full-text
DOCUMENT NUMBER:
                       103:73673
ORIGINAL REFERENCE NO.: 103:11843a,11846a
TITLE:
                       Dispersants for soluble metalworking
                       oils
                   Kao Corp., Japan; Nippon Kokan K. K.
Jpn. Kokai Tokkyo Koho, 16 pp.
PATENT ASSIGNEE(S):
SOURCE:
                       CODEN: JKXXAF
DOCUMENT TYPE:
                       Patent:
LANGUAGE:
                       Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:
    PATENT NO. KIND DATE APPLICATION NO.
                                                               DATE
                                          -----
    JP 59232186
                    A 19841226
                                          JP 1983-108379
                                                                 1983
                                                                0616
                                             <--
PRIORITY APPLN. INFO.:
                                          JP 1983-108379
                                                                1983
                                                                0616
                                             <--
ED Entered STN: 07 Sep 1985
AB
     Water-soluble lubricant additives for indirect rolling emulsions to be dispersed into
     cooling water or a lubricant are cationic, basic-N-containing cationic or amphoteric
     water-soluble polymers or anionic water-soluble polymers containing carboxylic or
     sulfonic acids. Thus, a lubricating mixture is manufactured by mixing Number 30 motor
     oil 94.9, poly(diethylaminomethyl methacrylate) phosphate [95243-19-9] 1.0,
     polyisobutylene [9003-27-4] 5.0, and N-alkyltrimethylenediamine dioleate 0.1 weight
     part.
     9003-04-7
               60472-42-6 91365-62-7
     91365-66-1 91379-98-5 91380-05-1
     91380-06-2 91387-89-2
     RL: USES (Uses)
       (water-soluble dispersants, for metal rolling
       lubricants)
   9003-04-7 HCAPLUS
CN 2-Propenoic acid, homopolymer, sodium salt (CA INDEX NAME)
    CM 1
    CRN 9003-01-4
    CMF (C3 H4 O2)x
         CM 2
         CRN 79-10-7
         CMF C3 H4 O2
```

```
но_ Й_сн__сн2
RN 60472-42-6 HCAPLUS
CN 2-Butenedioic acid (22)-, polymer with 2-propenoic acid, sodium
     salt (CA INDEX NAME)
     CM 1
     CRN 29132-58-9
     CMF (C4 H4 O4 . C3 H4 O2)x
CCI PMS
           CM
                 2
           CRN 110-16-7
           CMF C4 H4 O4
Double bond geometry as shown.
 HO2C
           CM
                3
           CRN 79-10-7
           CMF C3 H4 O2
    91365-62-7 HCAPLUS
Pyridinium, ethenyl-1-methyl-, methyl sulfate, polymer with
1-ethenyl-2-pyrrolidinone and sodium 2-propencate (9CI) (CA INDEX
CN
     NAME)
     CM 1
     CRN 7446-81-3
     CMF C3 H4 O2 . Na
      ● Na
```

CM 2

```
CRN 88-12-0
    CMF C6 H9 N O
    CM 3
    CRN 91365-61-6
    CMF C8 H10 N . C H3 O4 S
         CM 4
         CRN 56816-73-0
         CMF C8 H10 N
         CCI IDS
 D1-CH-CH2
         CM 5
         CRN 21228-90-0
         CMF C H3 O4 S
Me__0_S03-
RN 91365-66-1 HCAPLUS
CN
   2-Propenoic acid, sodium salt, polymer with ethenylpyridine
    phosphate and 1-ethenyl-2-pyrrolidinone (9CI) (CA INDEX NAME)
    CM 1
    CRN 7446-81-3
    CMF C3 H4 O2 . Na
```

```
Na Na
   CM 2
   CRN 88-12-0
   CMF C6 H9 N O
   CM
      3
   CRN 91365-65-0
   CMF C7 H7 N . x H3 O4 P
       CM
          4
       CRN 7664-38-2
       CMF H3 O4 P
       CM
       CRN 1337-81-1
       CMF C7 H7 N
       CCI IDS
```

D1-CH-CH2

RN 91379-98-5 HCAPLUS

CN 2-Propenoic acid, sodium salt, polymer with ethenylpyridine sulfate and 1-ethenyl-2-pyrrolidinone (9CI) (CA INDEX NAME)

```
CM 1
   CRN 7446-81-3
CMF C3 H4 O2 . Na
HO____CH___CH2
    ● Na
  CM 2
   CRN 88-12-0
   CMF C6 H9 N O
   CM 3
   CRN 91379-97-4
CMF C7 H7 N . x H2 O4 S
        CM 4
        CRN 7664-93-9
        CMF H2 O4 S
        CM 5
        CRN 1337-81-1
        CMF C7 H7 N
        CCI IDS
```



D1-CH-CH2

```
91380-05-1 HCAPLUS
2-Propencic acid, 2-methyl-, 2-(diethylamino)ethyl ester, compd.
With boric acid (H3B03), polymer with 1-ethenyl-2-pyrrolidinone
and sodium 2-propencate (9CI) (CA INDEX NAME)
CN
       CM 1
       CRN 7446-81-3
       CMF C3 H4 O2 . Na
       Na Na
       CM 2
       CRN 88-12-0
       CMF C6 H9 N O
       CM 3
       CRN 91380-04-0
       CMF C10 H19 N O2 . x B H3 O3
              CM
                     4
              CRN 10043-35-3
              CMF B H3 O3
              CM
              CRN 105-16-8
              CMF C10 H19 N O2
```

H2C O Me\_U\_U\_O\_CH2\_CH2\_NEt2

```
91380-06-2 HCAPLUS
CN
    2-Propenoic acid, 2-methyl-, 2-(diethylamino)ethyl ester,
    phosphate, polymer with sodium 2-methyl-2-propenoate (9CI) (CA
    INDEX NAME)
    CM 1
    CRN 5536-61-8
    CMF C4 H6 O2 . Na
 Me_U_CO2H
   Na.
    CM 2
    CRN 14480-03-6
    CMF C10 H19 N O2 , x H3 O4 P
              3
         CM
         CRN 7664-38-2
         CMF H3 O4 P
         CM
         CRN 105-16-8
         CMF C10 H19 N O2
 H2C O
Me_U_U_O_CH2_CH2_NEt2
RN
   91387-89-2 HCAPLUS
    2-Propenoic acid, sodium salt, polymer with
CN
    N-[2-(diethylamino)ethyl]-2-methyl-2-propenamide phosphate and
    sodium ethenesulfonate (9CI) (CA INDEX NAME)
    CM 1
    CRN 7446-81-3
    CMF C3 H4 O2 . Na
```

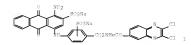
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HO_U_CH__CH2
     Na Na
    CM 2
    CRN 3039-83-6
    CMF C2 H4 O3 S . Na
 H2C___CH__SO3H
     Na Na
    CM 3
    CRN 91387-88-1
    CMF C10 H20 N2 O . x H3 O4 P
         CM
             4
         CRN 13173-42-7
         CMF C10 H20 N2 O
 H2C 0
Me_U_U_NH_CH2_CH2_NEt2
         CM
             5
         CRN 7664-38-2
         CMF H3 O4 P
IC ICM C10M001-06
    ICS B21B045-02; C10M001-28; C10M001-32; C10M001-40
CC 51-8 (Fossil Fuels, Derivatives, and Related Products)
    Section cross-reference(s): 38
ST lubricant rolling dispersant indirect; cationic polymer
    dispersant rolling lubricant; amionic
    polymer dispersant rolling lubricant; amphoteric
    polymer dispersant rolling lubricant; nitrogen compd
```

```
cationic dispersent lubricant
TT
    Fatty acids, polymers
    RL: USES (Uses)
       (dimers, polymers with diethylenetriamine salts,
       water-soluble dispersants, for metal rolling lubricants)
    Polyelectrolytes
       (dispersants, for metal cold-rolling lubricants)
    Dispersing agents
       (water-soluble polymer salts, for metal rolling
       lubricants)
    Lubricating oil additives
       (dispersants, rolling, water-soluble polymer
   9003-04-7
               9004-34-6D, cationic ammonium derivs.
     26658-46-8 41209-96-5 43134-20-9 52501-07-2
                                                     55141-01-0
     57578-39-9D, polymers with dimer acids 60472-42-6
     83446-68-8 91365-62-7 91365-66-1
     91379-82-7D, polymers with dimer acids 91379-98-5
    91380-05-1 91380-06-2 91380-14-2
91380-15-3 91387-89-2 96397-70-5 97521-20-5
    97696-03-2 97696-04-3 97709-59-6
    RL: USES (Uses)
       (water-soluble dispersants, for metal rolling
       lubricants)
IT 95243-19-9
    RL: USES (Uses)
       (water-soluble dispersants, for rolling emulsion
       lubricants)
L138 ANSWER 18 OF 22 HCAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1984:35784 HCAPLUS Full-text
DOCUMENT NUMBER:
                       100:35784
ORIGINAL REFERENCE NO.: 100:5551a,5554a
TITLE:
                       Concentrated liquid compositions of
                       cold-dyeing fiber-reactive dyes
INVENTOR(S):
                       Hoguet, Robert G.; Kalz, Dietmar; Thomas,
                       Thomas J.; Whetsell, Henry T.; Wolff, Joachim;
                       Nonn, Konrad; Wolf, Karlheinz
PATENT ASSIGNEE(S):
                      Bayer A.-G. , Fed. Rep. Ger.; Mobay Chemical
                       Corp.
SOURCE
                       Eur. Pat. Appl., 34 pp.
                       CODEN: EPXXDW
DOCUMENT TYPE:
                       Patent
LANGUAGE:
                       German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:
    PATENT NO. KIND DATE APPLICATION NO.
                                                               DATE
                       A2 19831026 EP 1983-103418
    EP 92119
                                                                1983
                                                               0408
     EP 92119
                       A.3
                             19841107
       R: CH, DE, FR, GB, LI
                       A
    US 4435181
                              19840306 US 1982-370426
                                                                1982
                                                               0421
                                            <--
    JP 58187460 A 19831101
                                         JP 1983-65768
                                                               1983
                                                                0415
    BR 8302071
               A 19831227 BR 1983-2071
                                                               1983
```

0420

CA 1205253 A1 19860603 CA 1983-443149 1983 1213 PRIORITY APPLN. INFO.: US 1982-370426 1982 0421

OTHER SOURCE(S): MARPAT 100:35784 Entered STN: 12 May 1984



ΔR Storage-stable, aqueous cold-dyeing reactive dye compns. are prepared which contain 10-50 weight% dve(s) with a fiber-reactive haloheterocyclic group and particle size <100 μ, sufficient anionic dispersent or polymeric N-vinyl lactam dispersant to prevent agglomeration or settling out of dye particles, and sufficient electrolyte to inhibit hydrolysis of the reactive group during temperature cycles ranging from 20° to 50°. A typical composition, stable for 3 wk during temperature cycles of 16 h at 20° and 8 h at 50°, contained dye I [78246-64-7] 31.5, lignosulfonate dispersent 3.0, NaCl 15.0, KH2PO4 0.2, K2HPO4 0.2, and H2O 50.0%.

7758-11-4 RL: USES (Uses)

(buffers, concentrated aqueous fiber-reactive dye compns. containing, storage-stable)

RN 7758-11-4 HCAPLUS

CN Phosphoric acid, potassium salt (1:2) (CA INDEX NAME)

TΤ 9003-39-8 RL: USES (Uses)

(dispersing agents, concentrated aqueous fiber-reactive dve compns. containing, storage-stable)

RN 9003-39-8 HCAPLUS

CN 2-Pyrrolidinone, 1-ethenyl-, homopolymer (CA INDEX NAME)

CM 1

CRN 88-12-0 CMF C6 H9 N O



```
7647-14-5, uses and miscellaneous
    RL: USES (Uses)
       (fiber-reactive dye compns. containing, concentrated aqueous,
       hydrolysis-resistant)
    7647-14-5 HCAPLUS
PM
CN
   Sodium chloride (NaCl) (CA INDEX NAME)
Cl_Na
IC C09B067-26; D06P001-38
CC
    40-6 (Textiles)
    Section cross-reference(s): 41
     7758-11-4 7778-77-0
     RL: USES (Uses)
       (buffers, concentrated aqueous fiber-reactive dve compns, containing,
       storage-stable)
     8062-15-5D, alkali metal salts 9003-39-8
     28299-41-4D, sulfonated, reaction products with
     formaldehyde
     RL: USES (Uses)
       (dispersing agents, concentrated aqueous
       fiber-reactive dye compns. containing, storage-stable)
     7647-14-5, uses and miscellaneous
     RL: USES (Uses)
       (fiber-reactive dye compns. containing, concentrated aqueous,
       hydrolysis-resistant)
OS.CITING REF COUNT: 1
                             THERE ARE 1 CAPLUS RECORDS THAT CITE
                             THIS RECORD (1 CITINGS)
L138 ANSWER 19 OF 22 HCAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1980:473673 HCAPLUS Full-text
DOCUMENT NUMBER:
                      93:73673
ORIGINAL REFERENCE NO.: 93:11971a,11974a
TITLE:
                       Aqueous dve preparations of
                       water-insoluble to slightly soluble dyes
INVENTOR(S):
                      Becker, Carl
PATENT ASSIGNEE(S):
                      Ciba-Geigy A.-G., Switz.
SOURCE:
                       Eur. Pat. Appl., 44 pp.
                       CODEN: EPXXDW
DOCUMENT TYPE:
                       Patent
LANGUAGE:
                       German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:
                      KIND DATE APPLICATION NO.
    PATENT NO.
                                                              DATE
                       ----
                             -----
                                         -----
    EP 7604
                       A1 19800206 EP 1979-102591
                                                                1979
                                                               0723
    EP 7604
                        В1
                              19810819
       R: CH, DE, FR, GB, IT
     US 4265631
                        A
                              19810505
                                       US 1979-60425
```

10/591.654-306094-EIC SEARCH 1979 0725 JP 55023194 19800219 JP 1979-98159 A 1979 0802 JP 63031516 B 19880624 PRIORITY APPLN. INFO .: CH 1978-8238 A 1978 0802 Entered STN: 12 May 1984 ED AB Storage-stable, concentrated aqueous pastes or suspensions eventually free of destabilizing electrolytes, e.g. anionic dispersants, contain ≥10% H2O, 25-60% finely dispersed water-insol. dye or fluorescent whitener, 0.1-5% water-soluble aminoplast precondensate(s), 0.5-5% nonionic ethylene oxide (I)-olefin oxide copolymer (>65% I, mol. weight >12,000), and optionally nonionic additives. Thus, a mixture of electrolyte-free l-amino-4-anilino-2-cyanoanthraquinone 450, 80:20 I-propylene oxide copolymer [9003-11-6] (mol. weight 16,500) 30, 67% aqueous solution of methylated melamine-formaldehyde precondensate [9003-08-1] 30, H2O 300, propylene glycol 170, and HCHO (preservative) 20 parts was milled to particle size <50 µ and mixed with 0.1% xanthan gum [11138-66-2] to give a 45% dye preparation which remained fluid and filterable and showed very little change in viscosity or degree of dispersity after several wk. at 60° or several mo. at room temperature TT 9003-01-4 26124-21-0 RL: USES (Uses) (thickening agents, for aqueous disperse dye preparation, nonionic dispersing agents compatible with) 9003-01-4 HCAPLUS RN CN 2-Propenoic acid, homopolymer (CA INDEX NAME) CM 1 CRN 79-10-7 CMF C3 H4 O2 но\_€\_сн\_\_сн₂ RN 26124-21-0 HCAPLUS Propanoic acid, ethenyl ester, polymer with 1-ethenvl-2-pyrrolidinone (CA INDEX NAME) CM 1 CRN 105-38-4 CMF C5 H8 O2

H2C\_\_\_CH\_O\_Ŭ\_Et

CM 2 CRN 88-12-0 CMF C6 H9 N O



39-7 (Textiles)

CC

IT Inks

```
тт
   9003-11-6
    RL: USES (Uses)
       (dispersing agents, containing aminoplast precondensate, aqueous dye
       prepns. containing, storage-stable)
    RL: USES (Uses)
       (dispersing agents, containing ethylene oxide-propylene oxide
       copolymer, aqueous dye preparation containing, storage-stable)
    88-12-0D, copolymers 9003-01-4 9004-64-2 9005-38-3
    26124-21-0
    RL: USES (Uses)
       (thickening agents, for aqueous disperse dye preparation,
       nonionic dispersing agents compatible with)
IT
    11138-66-2
    RL: USES (Uses)
       (thickening agents, for aqueous disperse dye prepns.,
       nonionic dispersing agents compatible with)
OS.CITING REF COUNT: 2 THERE ARE 2 CAPLUS RECORDS THAT CITE
                            THIS RECORD (3 CITINGS)
L138 ANSWER 20 OF 22 HCAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1977:197848 HCAPLUS Full-text
DOCUMENT NUMBER:
                       86:197848
ORIGINAL REFERENCE NO.: 86:30949a,30952a
TITLE:
                      Color dispersions in synthetic polymeric
                       vehicles
AUTHOR(S):
                      Mowrey, Rowland G.; Sutton, Richard C.; Klein,
                      Gerald W.
CORPORATE SOURCE:
                      UK
SOURCE:
                      Research Disclosure (1976), 151,
                      42-3 (No. 15131)
                       CODEN: RSDSBB; ISSN: 0374-4353
DOCUMENT TYPE:
                      Journal; Patent
LANGUAGE .
                       English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:
    PATENT NO.
                     KIND DATE APPLICATION NO.
                                                             DATE
    RD 151031
                            19761110 RD 1976-151031
                                                              1976
                                                              1110
                                           <--
PRIORITY APPLN. INFO.:
                                       RD 1976-151031
                                                              1976
                                                              1110
   Entered STN: 12 May 1984
    Coupler dispersions prepared with anionic terpolymers consisting of anionic moiety, a
```

IC C09B067-46; D06P001-16; D06P005-00; D06P001-52

(aqueous disperse dye prepas. for, storage-stable)

crosslinkable moiety, and a diluent moiety provide improved properties when

incorporated in Ag halide materials adapted for conventional color processing or redox

Page 135

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amplification color processing. Thus, to a coarse grain gelatin-Ag halide emulsion was
     added a coupler dispersion prepared by dissolving a vellow dve-forming coupler 6 g in
     di-Bu phthalate 1.5 and EtOAc 12 g and then dispersing in a 10% solution of 2-
     acetoacetoxyethyl methacrylate-N-isopropylacrylamide-Na 3-methacryloyloxypropane-1-
     sulfonate polymer (14.5:54:31.5) 60 q containing Na triisopropylnaphthalenesulfonate
     0.6 ml. The resulting emulsion was then coated on a polyethylene-coated paper supporot
     at Ag 15, coupler 100, coupler vehicle 100, and make-up vehicle 150 mg/ft2. The
     element was then sensitometrically exposed and developed for 3.5 min to show a \gamma of 3.1,
     a Dmin of 0.15, and a Dmax of 2.02 vs. 2.8, 0.12, and 1.90, resp., for a control
     containing gelatin as the vehicle.
TT
    62627-96-7 62627-98-9
    RL: USES (Uses)
       (in photog. color coupler dispersion preparation)
    62627-96-7 HCAPLUS
RN
    Butanoic acid, 3-oxo-, 2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl
    ester, polymer with N-(1-methylethyl)-2-propenamide and
    2-propenoic acid (9CI) (CA INDEX NAME)
    CM 1
    CRN 21282-97-3
    CMF C10 H14 O5
 Me_U_U
    CM 2
    CRN 2210-25-5
    CMF C6 H11 N O
 1-PrnH_____CH___CH2
    CM 3
    CRN 79-10-7
    CMF C3 H4 O2
   62627-98-9 HCAPLUS
RM
    Butanoic acid, 3-oxo-, 2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl
    ester, polymer with 1-ethenyl-2-pyrrolidinone and 3-sulfopropyl
    2-methyl-2-propenoate sodium salt (9CI) (CA INDEX NAME)
    CM 1
    CRN 21282-97-3
```

CMF C10 H14 O5



CRN 10548-16-0 CMF C7 H12 O5 S . Na



CM 3 CRN 88-12-0 CMF C6 H9 N O

CH\_CH2

CC 74-2 (Radiation Chemistry, Photochemistry, and Photographic Processes)

ST acrylic polymer photog coupler dispersion; anionic polymer photog coupler dispersion

IT Acrylic polymers, uses and miscellaneous RL: USES (Uses)

(in photog. color coupler dispersion preparation)
Photographic couplers

(preparation of dispersions of, anionic terpolymers in)

53934-20-6 54617-51-5 62627-96-7 62627-97-8 62627-98-9 62627-99-0

RL: USES (Uses)
(in photog. color coupler dispersion preparation)

(in photog, color coupler dispersion preparation

L138 ANSWER 21 OF 22 HCAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 1975:113134 HCAPLUS Full-text OCCUMENT NUMBER: 82:113134

ORIGINAL REFERENCE NO.: 82:18083a,18086a

TITLE: Fluorescent whitening and shrinkproofing of

cellulosic fiber products
INVENTOR(S): Nishikubo, Toshiki; Arima, Yasunori; Ichikawa,

Michio
PATENT ASSIGNEE(S): Kanebo, Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO.           | KIND | DATE     | APPLICATION NO. | DATE         |
|----------------------|------|----------|-----------------|--------------|
| JP 49093677          | A    | 19740905 | JP 1973-7152    |              |
|                      |      |          |                 | 1973<br>0116 |
| JP 52039476          | В    | 19771005 | <               |              |
| PRIORITY APPLN. INFO | .:   |          | JP 1973-7152 A  | 1973         |
|                      |      |          | <b>/</b>        | 0116         |
|                      |      |          |                 |              |

Entered STN: 12 May 1984

AB Fluorescent whitening and resin treatment (shrinkproofing) of cellulosic fiber products, such as cotton textiles, are processed in one step by treating the textiles with an aqueous dispersion containing an amionic fluorescent dye, poly(vinylpyrrolidone) (I) [9003-39-8], an acidic metal salt, and a resin. Thus, a cotton textile was dipped in a bath containing Hakkol BK Konk [54650-78-1] (an anionic fluorescent whitening agent) 0.2, I (mol. weight 40,000) 0.2, dimethyloldihydroxyethyleneurea [1854-26-8] 5, and MgCl2 0.5%, squeezed (70% pickup), dried 5 min at 100°, heated 3 min at 150°, washed with soap water, and dried to give a white, shrinkproof textile.

TT 9003-39-8

RL: USES (Uses) (in fluorescent brightening-shrinkproofing of cellulosic textiles, in single step)

RN 9003-39-8 HCAPLUS

CN 2-Pyrrolidinone, 1-ethenyl-, homopolymer (CA INDEX NAME)

CM 1 CRM 88-12-0 CMF C6 H9 N O



INCL 48B04: 48D71 CC 39-10 (Textiles) 9003-39-8

RL: USES (Uses)

(in fluorescent brightening-shrinkproofing of cellulosic textiles, in single step)

L138 ANSWER 22 OF 22 HCAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 1971:23350 HCAPLUS Full-text

DOCUMENT NUMBER: 74:23350 ORIGINAL REFERENCE NO.: 74:3785a,3788a

TITLE: Thermoplastic alloys of finely divided polylactams polymerized with alkaline

catalyst and cocatalyst in a high molecular

weight olefinic polymer matrix INVENTOR(S): Hill, Robert William; Anderson, Raymond P.;

Scroggins, Stanley V.

PATENT ASSIGNEE(S): Gulf Research and Development Co.

U.S., 3 pp. SOURCE:

CODEN: USXXAM

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO.             | KIND | DATE     | APPLICATION NO.  | DATE |
|------------------------|------|----------|------------------|------|
|                        |      |          |                  |      |
| US 3539662             | A    | 19701110 | US 1968-744333   |      |
|                        |      |          |                  | 1968 |
|                        |      |          |                  | 0712 |
|                        |      |          | <                |      |
| NL 6910722             | A    | 19700114 | NL 1969-10722    |      |
|                        |      |          |                  | 1969 |
|                        |      |          |                  | 0711 |
|                        |      |          | <                |      |
| PRIORITY APPLN. INFO.: |      |          | US 1968-744333 A |      |
|                        |      |          |                  | 1968 |
|                        |      |          |                  | 0712 |
|                        |      |          | <                |      |

ED Entered STN: 12 May 1984

Thermoplastic polymer alloys are prepared by dispersing a lactam in a matrix of a high-AB mol.-weight polyethylene or ethylene copolymer and then adding an alkaline catalyst and cocatalyst to polymerize the lactam. Thus, caprolactam and a small amount of polyethylene glycol (as a dispersion aid) was mixed with an ethylene-vinylpyrrolidinone copolymer in a Brabender Plasti-Corder, under N. N-Acetylcaprolactam and PhMgBr in ether were added and the lactem was polymerized for 25 min. The alloy obtained showed strong absorption bands characteristic of nylon 6. The alloys were useful for molding, extrusion, or coating applications. Addnl. suitable copolymers included ethylene-vinyl acetate copolymers, ethylene-lower alkyl methacrylate copolymers, and ethylene-lower alkyl acrylate copolymers. Pyrogenic colloidal silica, dodecyltrimethylammonium chloride, and ethylene-acrylic acid copolymers were also effective dispersing aids.

25067-33-8P, uses and miscellaneous

RL: PREP (Preparation)

(caprolactam polymers dispersed in, manufacture

of) RN 25067-33-8 HCAPLUS

2-Pyrrolidinone, 1-ethenyl-, polymer with ethene (CA INDEX NAME)

CM CRN 88-12-0

CMF C6 H9 N O

CM 2

CRN 74-85-1 CMF C2 H4

H2C \_\_\_ CH2

```
9010-77-9, uses and miscellaneous
     RL: USES (Uses)
        (dispersing agents, for caprolactam in ethylene
        copolymers)
RN
     9010-77-9 HCAPLUS
     2-Propenoic acid, polymer with ethene (CA INDEX NAME)
CM
    CM
    CRN 79-10-7
     CMF C3 H4 O2
 но_ (__сн__сн_
    CM
        2
    CRN 74-85-1
    CMF C2 H4
 H2C CH2
    C08G041-04A
INCL 260857000
CC
    36 (Plastics Manufacture and Processing)
     alloy polycaprolactam ethylene copolymer;
     polycaprolactam ethylene copolymer alloy; ethylene
     copolymer polycaprolactam alloy; molding nylon
     polyethylene alloy; nylon polyethylene alloy molding; coating
     polyolefin polylactam alloy; polyolefin
    polylactem alloy coating; polylactem polyolefin
     alloy coating
    Polymerization catalysts
        (scetylcaprolactam-phenylmagnesium bromide, for
        caprolactam dispersed in ethylene copolymers)
    Polymerization
        (anionic, of caprolactam dispersed
        in ethylene copolymers)
     Polyamides, preparation
     RL: PREP (Preparation)
        (dispersions in ethylene copolymers)
    Dispersing agents
        (for caprolactam in ethylene copolymers)
     25067-33-8P, uses and miscellaneous
     RL: PREP (Preparation)
        (caprolactam polymers dispersed in, manufacture
       of)
              1888-91-1
тт
     100-58-3
     RL: CAT (Catalyst use); USES (Uses)
        (catalysts, for polymerization of caprolactem in ethylene
        copolymers)
ΙT
     9010-77-9, uses and miscellaneous 25322-68-3
     RL: USES (Uses)
        (dispersing agents, for caprolactam in ethylene
       copolymers)
    25038-54-4P
TT
     RL: PREP (Preparation)
```

(manufacture of, dispersed in ethylene copolymers)

OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE
THIS RECORD (1 CITINGS)

#### FULL SEARCH HISTORY

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=> d his nofile
    (FILE 'HOME' ENTERED AT 09:16:55 ON 28 AUG 2009)
    FILE 'HCAPLUS' ENTERED AT 09:17:08 ON 28 AUG 2009
               E US20070154438/PN
              1 SEA SPE=ON ABB=ON PLU=ON US20070154438/PN
               D ALL
                D SCA
               SEL RN
    FILE 'REGISTRY' ENTERED AT 09:17:42 ON 28 AUG 2009
             6 SEA SPE=ON ABB=ON PLU=ON (134367-40-1/BI OR
                28133-65-5/BI OR 2997-92-4/BI OR 6132-04-3/BI OR
                7757-82-6/BI OR 9003-39-8/BI)
                D SCA
    FILE 'LREGISTRY' ENTERED AT 09:18:44 ON 28 AUG 2009
1.3
    FILE 'REGISTRY' ENTERED AT 09:32:48 ON 28 AUG 2009
            50 SEA SSS SAM L3
T. 4
                SCR 2043
1.5
L6
             50 SEA SSS SAM L3 AND L5
                D OUE STAT L4
                D OUE STAT L6
L7
         10986 SEA SSS FUL L3 AND L5
                SAV TEMP L7 PEZ654REG/A
T.R
             61 SEA SPE=ON ABB=ON PLU=ON L7 AND 1/NC
    FILE 'HCAPLUS' ENTERED AT 09:39:21 ON 28 AUG 2009
               D SCA L1
L9
         56482 SEA SPE=ON ABB=ON PLU=ON L7
L10
                QUE SPE=ON ABB=ON PLU=ON SALT OR ELECTROLYT?
                QUE SPE=ON ABB=ON PLU=ON SUSPEN? OR DISPERS? OR
                COLLOID? OR EMULS? OR MICROEMULS? OR SLURR?
          3337 SEA SPE=ON ABB=ON PLU=ON L9 AND L10 AND L11
T.13
         56173 SEA SPE=ON ABB=ON PLU=ON DISPERS?(2A)(POLYMERI? OR
                ANION? OR AGENT)
L14
           501 SEA SPE=ON ABB=ON PLU=ON L12 AND L13
               D SCA L1
               E "DISPERSING AGENTS"/CT
               E E3+ALL
               QUE SPE=ON ABB=ON PLU=ON "DISPERSING AGENTS"/CT
               E "DISPERSE SYSTEMS"/CT
               E E3+ALL
L16
               QUE SPE=ON ABB=ON PLU=ON "DISPERSE SYSTEMS"/CT
                E "SALTS, USES"/CT
                E E3+ALL
                QUE SPE=ON ABB=ON PLU=ON "SALTS, USES"/CT
L18
             9 SEA SPE=ON ABB=ON PLU=ON L9 AND (L15 OR L16) AND
                D SCA
L19
           502 SEA SPE=ON ABB=ON PLU=ON L14 OR L18
    FILE 'REGISTRY' ENTERED AT 09:49:24 ON 28 AUG 2009
               D SCA L2
              3 SEA SPE=ON ABB=ON PLU=ON L2 AND ?SALT?/CNS
               D SCA
               E E SODIUM SULFATE/CN
               E SODIUM SULFATE/CN
L21
             1 SEA SPE=ON ABB=ON PLU=ON SODIUM SULFATE/CN
```

E POTASSIUM SULFATE/CN

L22

1 SEA SPE-ON ABB-ON PLU-ON POTASSIUM SULFATE/CN

|      | 10/05/1,00 ( 00005 ( 22   | C DEI III CII        |
|------|---|----------------------|
| 1.23 | E AMMONIUM SULFATE/CN 1 SEA SPE=ON ABB=ON PLU=ON AMMONIUM           | M SHLEATE/CN         |
|      | E MAGNESIUM SULFATE/CN  |                      |
| L24  | 4 1 SEA SPE=ON ABB=ON PLU=ON MAGNESIV<br>E ALUMINUM SULFATE/CN      | UM SULFATE/CN        |
| L25  | 5 1 SEA SPE=ON ABB=ON PLU=ON ALUMINUM<br>E SODIUM CHLORIDE/CN       | M SULFATE/CN         |
| L26  | 6 1 SEA SPE=ON ABB=ON PLU=ON SODIUM (                               | CHLORIDE/CN          |
| L27  | E POTASSIUM CHLORIDE/CN 7 1 SEA SPE=ON ABB=ON PLU=ON POTASSI        | UM CHLORIDE/CN       |
|      | E SODIUM DIHYDROGENPHOSPHATE/CN<br>E SODIUM DIHYDROGEN PHOSPHATE/CN |                      |
| L28  | 8 1 SEA SPE=ON ABB=ON PLU=ON SODIUM N                               | DIHYDROGEN PHOSPHATE |
|      | /CN<br>D SCA  |                      |
|      | E DIAMMONIUM HYDROGENPHOSPHATE/CN                                   |                      |
|      | E DIAMMONIUM HYDROGEN PHOSPHATE/CN                                  |                      |
| L29  |   | IUM HYDROGEN         |
|      | PHOSPHATE/CN<br>D SCA   |                      |
|      | E DIPOTASSIUM HYDROGENPHOSPHATE/CN                                  |                      |
|      | E DIPOTASSIUM HYDROGEN PHOSPHATE/CN                                 |                      |
| L30  |   |                      |
|      | PHOSPHATE/CN  |                      |
|      | D SCA   |                      |
|      | E CALCIUM PHOSPHATE/CN  |                      |
| L31  |   | PHOSPHATE/CN         |
|      | D SCA<br>E SODIUM CITRATE/CN  |                      |
| L32  |   | CITRATE/CN           |
|      | D SCA   | ,                    |
|      | E IRON SULFATE/CN   |                      |
| L33  |   | LFATE/CN             |
|      | D SCA   |                      |
|      | E CALCIUM NITRATE/CN  |                      |
| L34  |   | NITRATE/CN           |
| L35  | E SODIUM NITRATE/CN  SEA SPE=ON ABB=ON PLU=ON SODIUM N              | NITENTE/CN           |
| 133  | E AMMONIUM NITRATE/CN   | NIIKAIL/CN           |
| L36  |   | M NITRATE/CN         |
|      | E ALUMINUM NITRATE/CN   |                      |
| L37  |   | M NITRATE/CN         |
|      | E SODIUM THIOCYANATE/CN   |                      |
| L38  | 8 1 SEA SPE=ON ABB=ON PLU=ON SODIUM :<br>E SODIUM IODIDE/CN         | THIOCYANATE/CN       |
| L39  |   |                      |
| L40  |   |                      |
|      | OR L24 OR L25 OR L26 OR L27 OR L28 O                                |                      |
|      | L31 OR L32 OR L33 OR L34 OR L35 OR 1                                | L36 OR L37 OR L38    |
|      | OR L39)<br>D SCA L21  |                      |
|      | D SCA L32   |                      |
|      | E SODIUM CITRATE/CN   |                      |
|      | E SODIUM CITRATE/CN 25  |                      |
| L41  | 3 SEA SPE=ON ABB=ON PLU=ON ("SODIUM")                               | M CITRATE ANHYDROUS" |
|      | CN OR "SODIUM CITRATE DIHYDRATE"/CI                                 | N OR "SODIUM         |
|      | CITRATE HYDRATE (CN)  |                      |
|      | D SCA   |                      |
| L42  | 2 24 SEA SPE=ON ABB=ON PLU=ON L40 OR I                              | L41                  |
|      | FILE 'LREGISTRY' ENTERED AT 10:10:50 ON 28 AUG                      | 2009                 |
| L43  |   |                      |
|      |   |                      |
|      | FILE 'REGISTRY' ENTERED AT 10:20:45 ON 28 AUG                       | 2009                 |
| L44  | 4 50 SEA SSS SAM L43  |                      |
|      |   |                      |
|      |   |                      |

FILE 'STNGUIDE' ENTERED AT 10:24:24 ON 28 AUG 2009

FILE 'LREGISTRY' ENTERED AT 10:28:49 ON 28 AUG 2009 FILE 'REGISTRY' ENTERED AT 10:29:01 ON 28 AUG 2009 1.45 SCR 1199 SCR 1929 OR 2025 OR 2019 OR 2026 OR 1992 OR 2021 L46 L47 50 SEA SSS SAM L43 AND L45 NOT L46 D OHE T.48 SCR 1929 OR 2025 OR 2019 OR 2026 OR 1992 OR 2021 OR 195 L49 50 SEA SSS SAM L43 AND L45 NOT L48 L50 SCR 1929 OR 2025 OR 2019 OR 2026 OR 1992 OR 2021 OR 194 L51 50 SEA SSS SAM L43 AND L45 NOT L50 L52 370456 SEA SSS FUL L43 AND L45 NOT L50 L53 1 SEA SPE=ON ABB=ON PLU=ON L2 AND L52 D SCA D SCA L2 T.54 12870 SEA SPE=ON ABB=ON PLU=ON L52 AND A1/PG 1.55 15 SEA SPE=ON ABB=ON PLU=ON L52 AND ?AMMONIUM?/CNS D SCA E ACRYLIC ACID/CN T.56 1 SEA SPE=ON ABB=ON PLU=ON ACRYLIC ACID/CN D E POLYACRYLIC ACID/CN 1 SEA SPE=ON ABB=ON PLU=ON ACRYLIC ACID HOMOPOLYMER/CN 70107 SEA SPE=ON ABB=ON PLU=ON 79-10-7/RN,CRN 1.58 1.59 1 SEA SPE=ON ABB=ON PLU=ON 9003-01-4/RN E METHARYCLIC ACID/CN E METHYLARYCLIC ACID/CN E METHARYCLIC ACID HOMOPOLYMER/CN E METHYLMETHARYCLIC ACID HOMOPOLYMER/CN E METHACRYLIC ACID/CN L60 1 SEA SPE=ON ABB=ON PLU=ON METHACRYLIC ACID/CN D 1.61 54786 SEA SPE=ON ABB=ON PLU=ON 79-41-4/RN, CRN 118683 SEA SPE=ON ABB=ON PLU=ON L58 OR L59 OR L61 L62 20091 SEA SPE=ON ABB=ON PLU=ON L62 AND (A1/PG OR ?AMMONIUM L63 ?/CNS) L64 12559 SEA SPE=ON ABB=ON PLU=ON L52 AND ((FORMIC OR ACETIC OR CITRIC OR OXALIC OR MALONIC)/CNS AND ?ACID?/CNS) 1.65 5222 SEA SPE=ON ABB=ON PLU=ON L64 AND 1/NC 1.66 217193 SEA SPE=ON ABB=ON PLU=ON L52 AND 1/NC 1.67 77614 SEA SPE=ON ABB=ON PLU=ON L66 AND NO RSD/FA L68 139579 SEA SPE=ON ABB=ON PLU=ON L66 NOT L67 1.69 73787 SEA SPE=ON ABB=ON PLU=ON L66 AND 1/NR L70 65792 SEA SPE=ON ABB=ON PLU=ON L68 NOT L69 L71 153263 SEA SPE=ON ABB=ON PLU=ON L52 NOT L66 L72 56892 SEA SPE=ON ABB=ON PLU=ON L71 AND NO RSD/FA L73 96371 SEA SPE=ON ABB=ON PLU=ON L71 NOT L72 FILE 'HCAPLUS' ENTERED AT 10:55:54 ON 28 AUG 2009 L74 QUE SPE=ON ABB=ON PLU=ON L42 L75 4262 SEA SPE=ON ABB=ON PLU=ON L9 AND L74 L76 OUE SPE=ON ABB=ON PLU=ON (L54 OR L55 OR L56 OR L57 OR L58 OR L59 OR L60 OR L61) L77 OUE SPE=ON ABB=ON PLU=ON L62 L78 QUE SPE-ON ABB-ON PLU-ON (L63 OR L64 OR L65) L79 QUE SPE=ON ABB=ON PLU=ON L67 T.80 QUE SPE-ON ABB-ON PLU-ON L69 OR L70 L81 OUE SPE-ON ABB-ON PLU-ON L72 OR L73 L82 OUE SPE=ON ABB=ON PLU=ON L54 OR L55 L83 QUE SPE=ON ABB=ON PLU=ON L63 4156 SEA SPE=ON ABB=ON PLU=ON L9 AND (L82 OR L83) 1.84 10249 SEA SPE=ON ABB=ON PLU=ON L9 AND L64 1.85 14383 SEA SPE=ON ABB=ON PLU=ON L75 OR L84 OR L85 L86

297 SEA SPE=ON ABB=ON PLU=ON L86 AND L19

L87

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L88
           297 SEA SPE=ON ABB=ON PLU=ON L87 AND (L13 OR L15 OR
               L16)
L89
           981 SEA SPE=ON ABB=ON PLU=ON ?POLYM?(4A)ANION?(4A)DISPER
L90
            12 SEA SPE=ON ABB=ON PLU=ON L88 AND L89
             1 SEA SPE=ON ABB=ON PLU=ON L1 AND L90
T.91
               D KWIC
1.92
            15 SEA SPE-ON ABB-ON PLU-ON L19 AND L89
1.93
         10948 SEA SPE=ON ABB=ON PLU=ON L41
L94
           561 SEA SPE=ON ABB=ON PLU=ON L86 AND L93
               D KWIC
    FILE 'REGISTRY' ENTERED AT 11:15:39 ON 28 AUG 2009
               D SCA L41
    FILE 'HCAPLUS' ENTERED AT 11:16:13 ON 28 AUG 2009
               E 300 KWIC
               D 300 KWIC
             2 SEA SPE=ON ABB=ON PLU=ON L94 AND L89
               D SCA
T.96
            25 SEA SPE=ON ABB=ON PLU=ON L86 AND L89
1.97
          6017 SEA SPE=ON ARR=ON PLH=ON L9 AND L61
1.98
         12616 SEA SPE=ON ARR=ON PLU=ON L9 AND L62
L99
          2242 SEA SPE=ON ABB=ON PLU=ON L98 AND L63
L100
            15 SEA SPE=ON ABB=ON PLU=ON L99 AND L89
L101
         25701 SEA SPE=ON ABB=ON PLU=ON L62(3A)COPOLYMER
T.102
          1424 SEA SPE=ON ABB=ON PLU=ON L9 AND L101
L103
            9 SEA SPE=ON ABB=ON PLU=ON L102 AND L89
            27 SEA SPE=ON ABB=ON PLU=ON L90 OR L95 OR L96 OR L100
L104
               OR L103
L105
            12 SEA SPE=ON ABB=ON PLU=ON L104 AND L19
L106
            33 SEA SPE=ON ABB=ON PLU=ON L104 OR L105 OR L18
L107
          2909 SEA SPE=ON ABB=ON PLU=ON ANION?(2A)DISPERS?
            20 SEA SPE=ON ABB=ON PLU=ON L107 AND L106
L108
L109
         12616 SEA SPE=ON ABB=ON PLU=ON (L97 OR L98 OR L99) OR
               L102
L110
            27 SEA SPE=ON ABB=ON PLU=ON L109 AND L89
L111
            32 SEA SPE=ON ABB=ON PLU=ON L109 AND L107
            42 SEA SPE=ON ABB=ON PLU=ON L108 OR L110 OR L111
L112
L113
               QUE SPE=ON ABB=ON PLU=ON VINYL(A)?LACTAM? OR
               VINYLLACTAM?
             4 SEA SPE=ON ABB=ON PLU=ON L112 AND L113
T.114
               D SCA
1.115
             1 SEA SPE=ON ABB=ON PLU=ON L1 AND L112
               D SCA
T.116
               OUE SPE=ON ABB=ON PLU=ON ?LACTAM?
               E LACTAMS/CT 25
               E E3+ALL
L117
               QUE SPE=ON ABB=ON PLU=ON LACTAMS/CT
L118
            7 SEA SPE=ON ABB=ON PLU=ON L112 AND (L116 OR L117)
               D SCA
L119
            26 SEA SPE=ON ABB=ON PLU=ON L19 AND (L116 OR L117)
            64 SEA SPE=ON ABB=ON PLU=ON L112 OR L114 OR L118 OR
L120
               L119
L121
               QUE SPE=ON ABB=ON PLU=ON L2
T.122
           416 SEA SPE=ON ABB=ON PLU=ON L19 AND L121
            40 SEA SPE=ON ABB=ON PLU=ON L120 AND L121
L123
L124
            10 SEA SPE-ON ABB-ON PLU-ON L122 AND L89
            17 SEA SPE=ON ABB=ON PLU=ON L122 AND L107
L125
            31 SEA SPE-ON ABB-ON PLU-ON L120 AND L89
L126
L127
            36 SEA SPE=ON ABB=ON PLU=ON L120 AND L107
L128
            49 SEA SPE-ON ABB-ON PLU-ON (L124 OR L125 OR L126 OR
               L127)
L129
               QUE SPE=ON ABB=ON PLU=ON PRODUC? OR PROD# OR
               GENERAT? OR MANUF? OR MFR# OR CREAT? OR FORM## OR
               FORMING# OR FORMAT? OR MAKE# OR MADE# OR MAKING# OR
               FABRICAT? OR SYNTHESI? OR PREPAR? OR PREP# OR PROCESS?
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|      |    | OR METHOD?   |
|------|----|--|
| L130 | 40 | SEA SPE=ON ABB=ON PLU=ON L128 AND L129             |
| L131 |    | QUE SPE=ON ABB=ON PLU=ON PY=<2004 NOT P/DT         |
| L132 | 0  | SEA SPE=ON ABB=ON PLU=ON L130 AND L131             |
| L133 |    | QUE SPE=ON ABB=ON PLU=ON (PY=<2004 OR PRY=<2004 OR |
|      |    | AY=<2004 OR MY=<2004 OR REVIEW/DT) AND P/DT        |
| L134 | 30 | SEA SPE=ON ABB=ON PLU=ON L130 AND L133             |
| L135 | 30 | SEA SPE=ON ABB=ON PLU=ON L134 OR L132              |
|      |    | D L1 CC  |
| L136 |    | QUE SPE=ON ABB=ON PLU=ON 37/SC,SX                  |
| L137 | 8  | SEA SPE=ON ABB=ON PLU=ON L135 AND L136             |
|      |    | SAV TEMP L135 PEZ654HCP/A                          |
| L138 | 22 | SEA SPE=ON ABB=ON PLU=ON L135 NOT L137             |
|      |    | SAV TEMP L137 PEZ654HCPA/A                         |
|      |    | D QUE L135   |
|      |    | D L137 1-8 IBIB ED ABS HITSTR HITIND               |
|      |    | D L138 1-22 IBIB ED ABS HITSTR HITIND              |